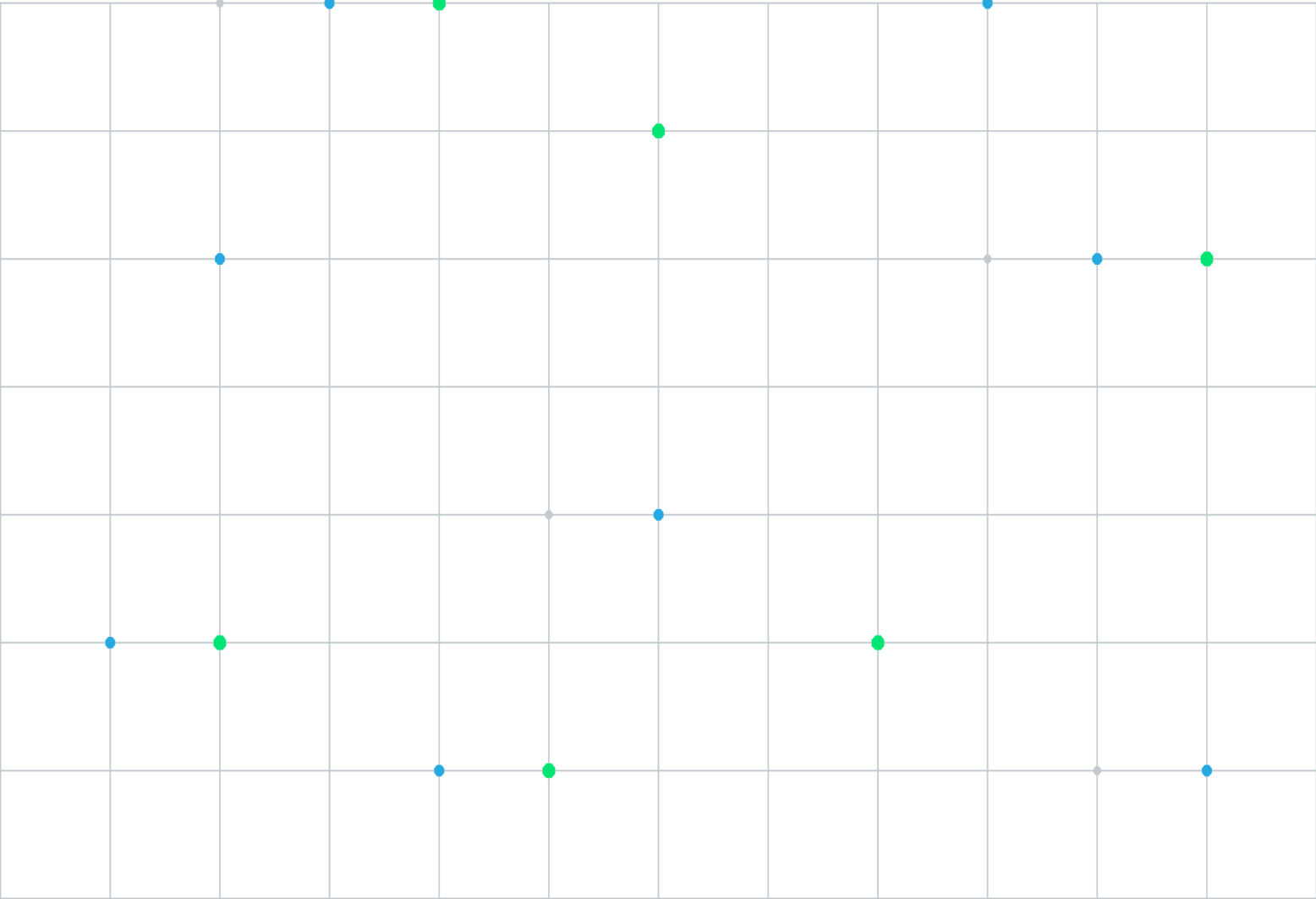


Quant Analytics User Guide

December 2, 2023



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Getting Started

Quant Analytics is a HTML platform that provides deeper insight into CME FX, CME FX Link, EBS Market (EBSM), and EBS Direct (EBS Direct) activity and liquidity structures along with advanced statistical views on your trade activity, including bilateral liquidity relationships.

With access to CME's universe of benchmark trading data, users can gauge performance from a new perspective with relative comparison against the market. For example, through comparative analytics you can benchmark your activity to all other clients on the system for similar trades to obtain peer-to-peer analysis.

This guide covers how to navigate the User Interface, access and use the various analytics dashboards and report generation. The following dashboards are covered in this guide:

- [Trade Activity](#)
- [FX Market Profile](#)
- [Metals Market Profile](#)
- [US Treasury Profile](#)
- LC Historical [Charts](#) and [Spreads](#)
- [LC Market Impact](#) and [LP Market Impact](#)
- [LC Alpha Report](#)
- [LP Alpha Report](#)



Note: All screenshots shown are using hidden floor and institution codes, for illustration purposes only and to show functionality. Actual Floor Codes and Institution codes are four letter/alphanumeric codes.

Logging In

The application is accessed via internet browser (Chrome is recommended).



To log in to Quant Analytics:

1. Navigate to the [CME Group Login](#) page,
OR navigate directly to the Quant Analytics login URL: <https://quantanalytics.cmegroup.com>
2. Enter your CME Group Login credentials (**User ID** and **Password**), then click **Login**.
3. Upon successful login, the two factor authentication screen appears. On your mobile device or by phone, confirm the security code, then select **Continue**.
4. From the CME Customer Center menu, select **Apps & Analytics > Quant Analytics** as needed.

Help and Support

Please contact the following support teams as needed:

- General questions: [EBS Liquidity Management Team](#), or your [account manager](#).
- Login and access assistance: [Enterprise Access and Entitlements \(EASE\)](#).
- Technical questions and [assistance / general suggestions](#).

What's New

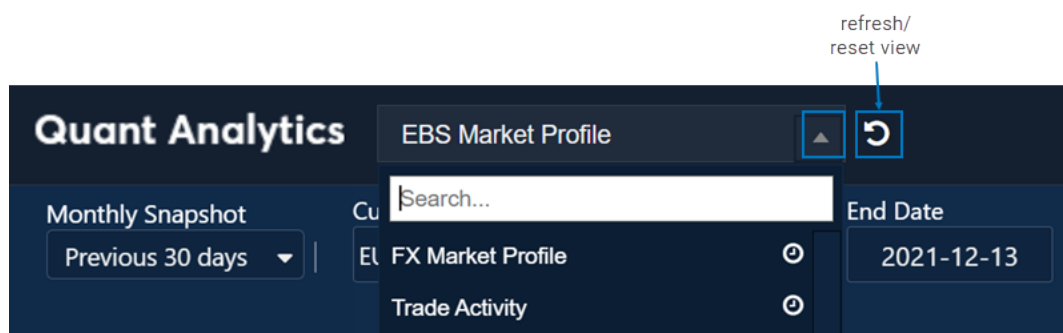
The list below illustrates the updates made to the Quant Analytics User Help system.

	Topic	Description
12/02/23	LC Alpha Report , LP Alpha Report	Added zeta calculation timeout
06/03/23	LC Alpha Report , LP Alpha Report	Added new LP Hold times, restructured sections and other general edits
01/11/23	multiple	Added Full download option globally
12/27/22	Getting Started	Updated EASE link
11/17/22	EBS Market Profile	Updated content
09/07/22	LC Alpha Report	Edit to report
06/23/22	Logging In , Help & Support	Updated URL, contacts
01/31/22	All	Initial Help Version

User Interface Conventions

Quant Analytics features are intuitive and easy to navigate via standard drop-down menus, calendars, text boxes, etc.

Navigate to various dashboards from a top drop-down menu.



Functions common to various dashboards are described in the sections below.

Date Ranges – Start and End Date

Specify date ranges for analysis by clicking the calendar. The default is month-to-date.

Start Date: 2021-11-14 End Date: 2021-12-13

Nov 2021

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Start and End Times

Choose a specific time period. The default is current time less 4 hours and 15 minutes, expressed in GMT time. The 15 minutes accounts for an approximate 15 minute GMT (00:00:00.000 GMT and 20:00:00.000 GMT) data delay.

Start Time: 00:00:00.000 End Time: 20:00:00.000

Submit Button

Press **Submit** to request data from the server when you have entered new input. Submit is not needed to switch between dashboards.

SUBMIT

Exporting Data

Options to download data are available depending on the type dashboard.

For example, under “EBS Market Profile, selecting the “Data” tab will display the Excel and CSV options in the right corner above the table.

Graph **Data**

Percentage of traded volume and TOB spread in full pips for each market segment.

Excel | CSV

CurrencyPairPer...	TOB Spread in Full Pips	EBSM % Traded Volum...	EBSD % Traded Volume...
00:00:00	1.4915	0.4944	1.5800
00:30:00	1.6734	1.1807	1.7770
01:00:00	1.5946	0.5705	1.8682

Excel_20230109 (1).xlsx

The dashboards for LC Market Impact, LP Market Impact, LC Alpha Report, and LP Alpha Report have the option to download CSV file (up to 6,000 lines of data) or Full zipfile (complete datasets).

Errors

In addition to the 30-minute inactivity timeout (the application automatically logs out if no queries are submitted for 30 minutes), there may be occasional error messages. This can happen for many reasons. See section below for an example.

Note: For any errors, please take a screen shot, if possible, and contact quantanalytics@cmegroup.com

Max Query Size Error Message

You cannot run a report for longer than 6 months

Error: Database exception: Max 60 days.

EBS Market Profile

The EBS Market Profile dashboard shows clients' trade, order, spread and TOB volume across various EBS product groups.

Clients can quickly bring up any market, and at a glance, determine the times of the day with the tightest prices, the most activity and the most liquidity at TOB (top of book) - important for calculating execution efficiencies, slippage costs, minimizing market impact on trades, etc.

Note: All times are shown in **GMT**.

The four main sections on the dashboard are:

- Traded Volumes Profile of Major EBS Markets (EBSM, EBSD --Disclosed and non-disclosed)
 - Shows the volume as a percentage of the hours selected (default is days).
 - Overlays TOB EBSM spreads.
- EBS Order Arrival time
 - Shows the time in seconds to receive a predefined quantity of EBSM orders following any random trade across our ecosystem, based on monthly average orders arrival per 30 seconds.
 - Can be used to estimate expected holding / clearing times for currencies, based on a minimum trade size (1-3 mil), which can then be adjusted by various methods to estimate clearing times for larger tickets (e.g. 50 mil = Sqrt (50) * 1 mil = 7 times the numbers calculated for liquid markets.

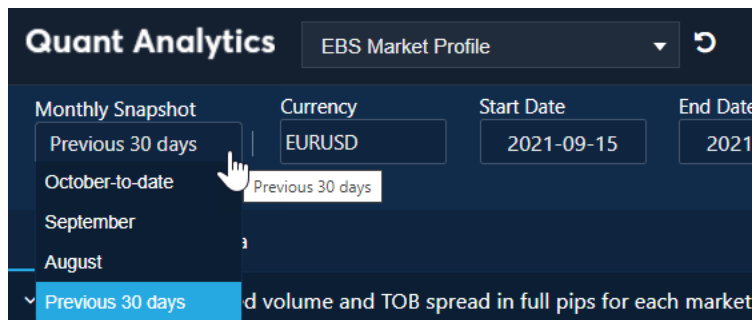
- EBS Markets TOB Spread charts
 - Buckets TOB spreads into a Box-Whiskers (Percentile) Plot, to show 5%, 25%, 50%, 75% and 85th percentile buckets of the TOB markets spreads.
- EBSM Markets TOB Volumes (Shown and Hidden amounts)
 - Time weighted numbers for chosen periods.

Command List – Market Profile

Monthly Snapshot

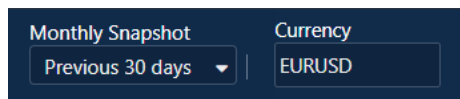
Allows user to choose pre-cached data for the Previous 30 days (default), current MTD, or previous two months.

Only the top 20 markets are pre-cached, so analytics display more quickly on the screen. Select a 'snapshot' value and queries are automatically returned.



Currency

Allows user to optionally input any Currency for analysis. Single EBS Currency symbol codes are required, e.g. EURUSD, or USDI01 for Off-SEF INR.



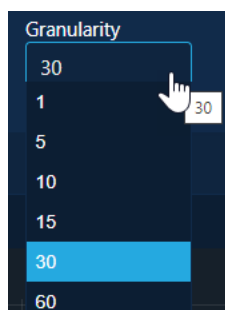
Start/End Date and Start/End Times

See [User Interface Conventions](#) section for more details. The default is 00:00:00.000 GMT and 20:00:00.000 GMT.

- USDRUB might optimally start at 07:00:00 and USDI01 stop at 11:00:00.

Granularity

Choose the granularity for traded Volume Buckets, Spread Buckets and TOB volumes.



Graphical or Data Views

Switch between Graphical or Data views by clicking the Graph or Data tabs. This changes settings for all display tabs. In the data view, it is possible to export to Excel.

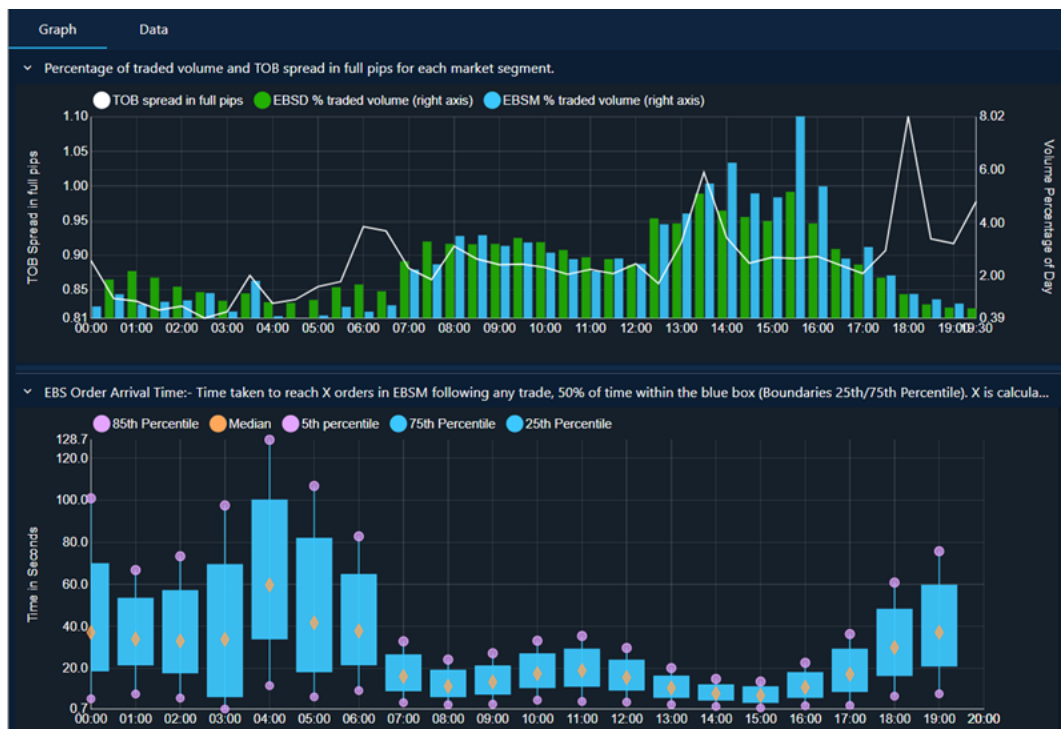


Figure 1: Graphical View

Graph

Data

Percentage of traded volume and TOB spread in full pips for each market segment.

Excel

CSV

CurrencyPairPerHour	TOB Spread in Full Pips	EBSH % Traded Volume	EBSM % Traded Volume	EBSD % Traded Volume
00:00:00	0.8920	0.3067	0.8361	1.0963
00:30:00	0.8373	0.6135	1.2990	1.8523
01:00:00	0.8333	0.3067	0.9182	2.1736
01:30:00	0.8206	1.5337	1.0123	1.9258
02:00:00	0.8262	0.0000	1.0656	1.5852
02:30:00	0.8087	0.6135	1.3403	1.3764
03:00:00	0.8181	0.0000	0.6422	1.0488
03:30:00	0.8705	1.5337	1.8037	1.3298

EBS Hedge Market Insurance time:- Time taken to reach X orders in EBSM following any trade, 50% time within blue box (Boundaries 25th/75th Percentiles) . Used ...


Excel

CSV

time	low	Q1	Q2	Q3	high	bubW
00:00:00.000	5.5750	18.9530	37.1090	69.7510	100.9180	1.0000
01:00:00.000	7.8720	21.7720	33.9970	53.3030	66.7940	1.0000
02:00:00.000	5.9250	17.9840	33.0710	56.9760	73.3600	1.0000
03:00:00.000	0.7210	6.6890	33.8560	69.3120	97.4980	1.0000
04:00:00.000	11.8250	34.1630	59.7120	100.0320	128.7320	1.0000
05:00:00.000	6.4880	18.5370	41.6990	81.8170	106.7940	1.0000

Figure 2: Data View

To export to Excel or CSV, click the icon just, above the data table.


Export file
✕

Please enter the filename

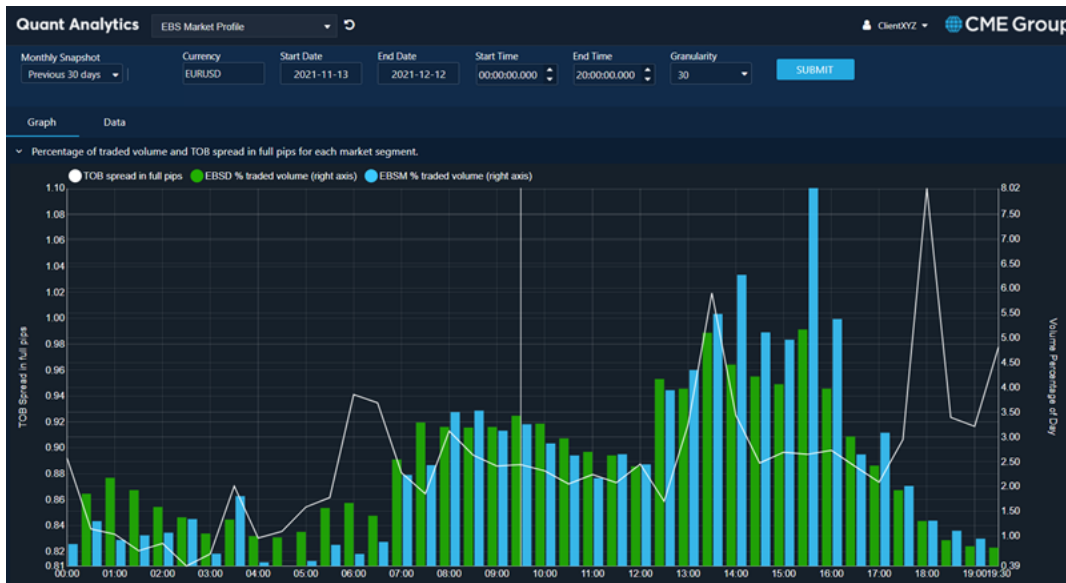
✓ OK
✕ Cancel

Changing Display Sizes

To adjust the graph size, click and drag the window tops / bottoms to your desired preference for printouts.

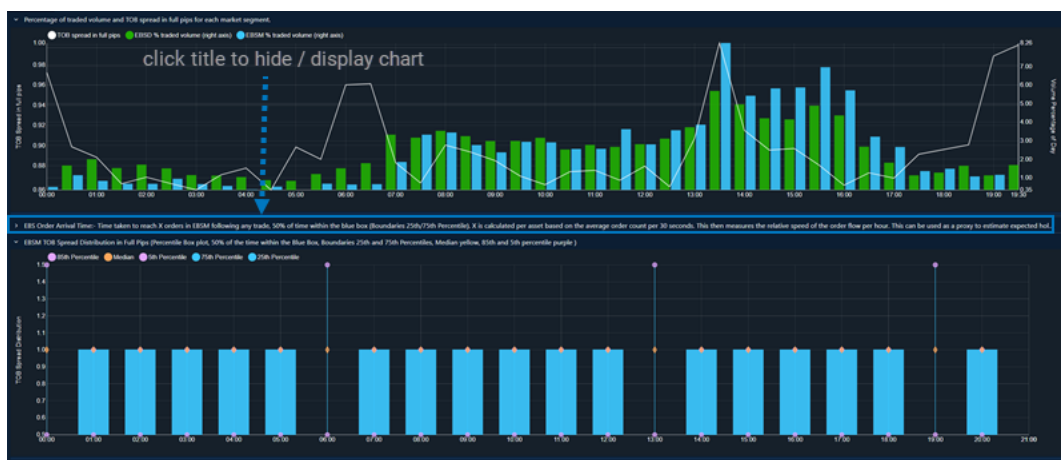


drag on border to
resize graph



To minimize displays, click on title bars.

Before...



After clicking on EBS Order Arrival Time title:

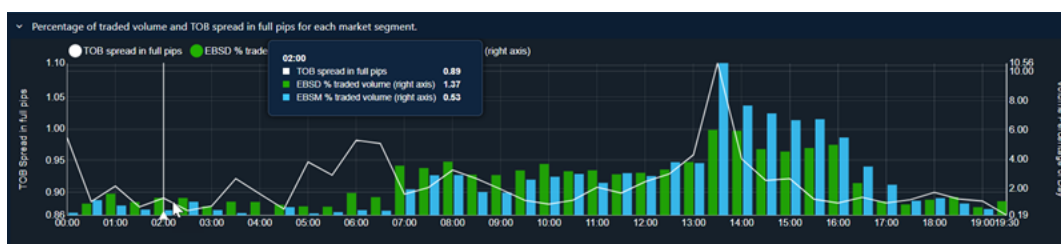


Percentage of Trade Volume

Traded Volumes Profile of Major EBS Markets (EBSM and EBSD [disclosed and non-disclosed])

- Shows the volume as a percentage of the hours selected (default is days)
- Overlays TOB EBSM spreads
- Click and toggle to display:
 - TOB Spread in full pips
 - EBSD % traded volume
 - EBSM % traded Volume

In example below, bucket time 02:00-02:30 had 0.053% of the day's trades in that half hour on EBSM.

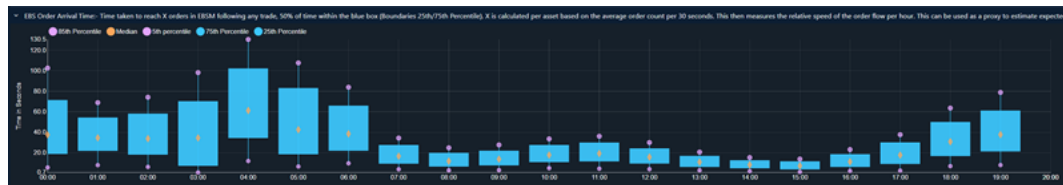


The same graph, with TOB spread and EBSM volumes turned off, shows that the most active trading period was 13:30-14:00 GMT in EBSD with 6% of days trades occurring in that half hour.



EBS Order Arrival Time (Box Whiskers Plot)

This graph calculates the arrival time of X many orders in EBS Market following any parent trade in EBSD or EBSS. X Varies per instrument and is not disclosed to clients, and X is fixed per period and X is calculated per asset based on the average order count per 30 seconds over the past 28 trading days.



EBS TOB Spread Distribution (Box Whiskers Plot)

This graph displays the TOB spread (ask-bid) in full pips of the currency and buckets them into granularity buckets and grouped into percentile distributions: the blue box of the body represents 50% of the times, bounded by 25th and 75th percentiles. The median for each hour is a yellow star, and the outside wings are shown at 5 and 85th percentiles as purple dots.

In the graph below, in the hour between 10:00-11:00 am in EURUSD, the median spread was 1 full pip. This 1 pip also represented the 25, 75 and 85 percentile, so this meant that only 5% of the time was EURUSD spread 0.5 pips, and only 15% of less the market was greater than 1.0 pip.

This graph provides a good, quick visual as to the true distribution of the TOB spread of a currency.



Other markets such as USDCNH, which have more spread width and more granularity per market, show a more normal Box-Whiskers plot pattern.



LC Historical Charts

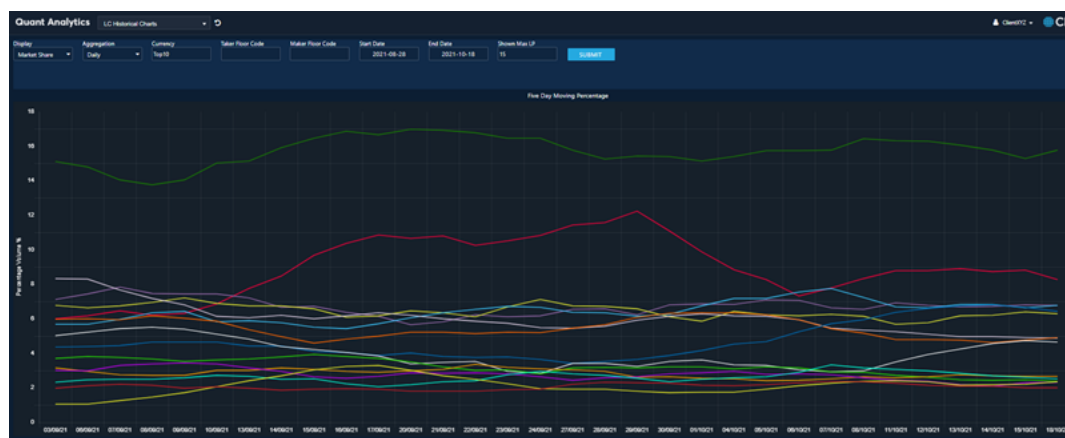
This dashboard is focused solely on LC (Liquidity Consumer clients) analysis of their trades on EBS Direct (EBSD) and EBS Select (EBSS).

Clients can track up to one years records of their performance with individual LP's or a group of LP's. Clients can see each LP's Volume Percentage share of trading wallet, LP's traded volume history in USD, LP's Reject percentage of matched orders, and LP's average hold times.

This data is available as daily running 5 day average percentage plot, or a hourly running 5 day average of hourly percentage share or as a breakdown of % share of LC trading wallet over 24 hours.

All information can be exported to csv as well.

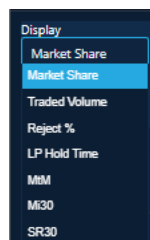
Default View



Command List – LC Historical Charts

Display

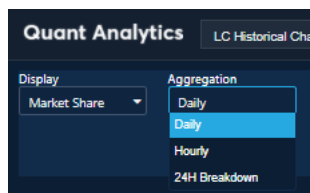
Click the Display button to quickly navigate to different views



- Market Share – charts each LP's share of the clients total wallet
- Traded Volume -charts each LP's traded USD volume
- Reject % - charts each LP's reject % of matched orders
- LP Hold time- charts each LP's average hold times on orders matched

Aggregation

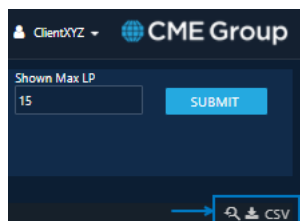
Click the Aggregation drop-down to choose different aggregated views.



- Daily – plots a daily running 5 day average of the display metric.
- Hourly -plots a hourly average of the displayed metric
- 24 Hour Breakdown – plots an hourly average based on 24 hour GMT time for the displayed metric over the time horizon chosen.

Print Table data

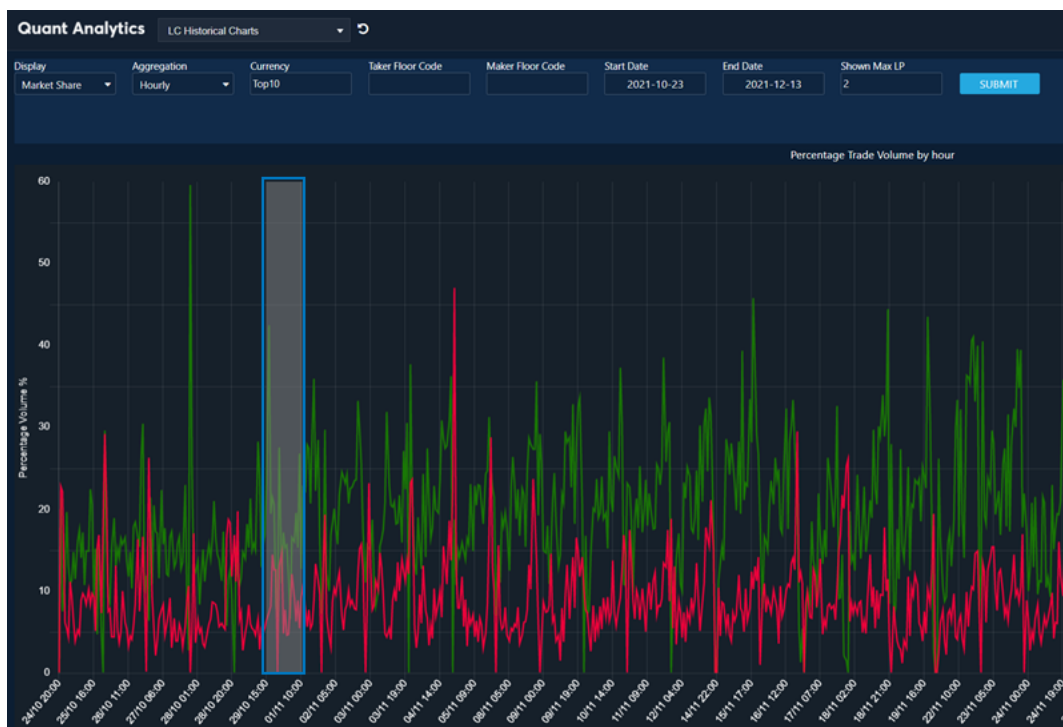
Click the CSV button to export a chart to a data table.



Zoom Feature

Click the chart and hold the left mouse down to zoom in over any period, and press the magnifying glass on the right hand side to zoom back out.

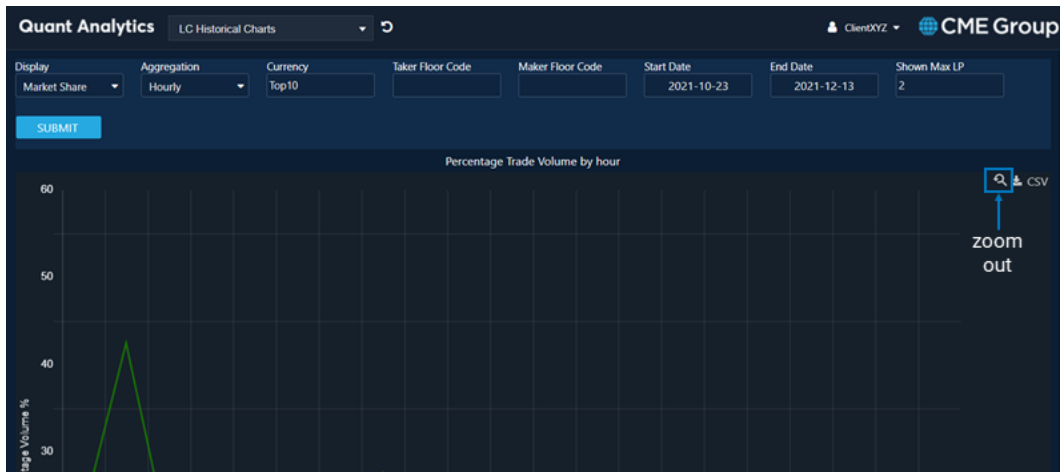
Hourly Plot volume of top 2 LPs



Zooming in to 2 day range



Zoom out to return to chart



LC Historical Spreads

This dashboard is focused solely on LC (Liquidity Consumer clients) analysis of the price streams they received on EBS Direct (EBSD) and EBS Select (EBSS).

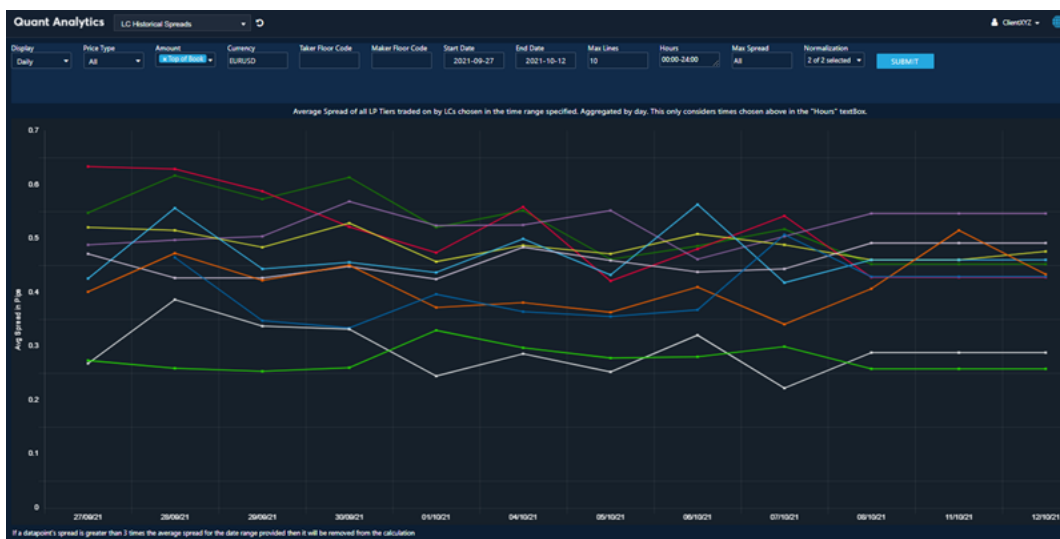
Clients can track up to one year of records for their individual LP's or a group of LP's actual quoted price spreads. Please note data starts from January 2019 and will build up. Clients can see each LP's average quoted price down to an hour by hour level, daily averages, or broken down as an average for hour for the 24 hour trading day.

Clients can plot all spreads received, including TOB through to 50mil plus full amount tiers.

If any quoted spread is greater than 3 times the average spread for the date range, it is removed from calculations. Shown LPs are not determined by actual LP / LC price tier mappings but instead are shown based on trading activity between LC and specific LP price tier. If there has been no trades we continue to show the LP price tier spreads for up to 14 days after the last trade.

All information can be exported to csv as well.

Default View



Command List – LC Historical Charts

Quant Analytics LC Historical Spreads

Display: Daily Price Type: All Amount: Top of Book Currency: EURUSD Taker Floor Code: Maker Floor Code: Start Date: 2021-09-27 End Date: 2021-10-12 Max Lines: 10 Hours: 00:00-24:00 Max Spread: All Normalization: 2 of 2 selected SUBMIT

Display

Click the Display button to quickly navigate to different views

Quant Analytics LC Historical Spreads

Display: Daily Price Type: All Amount: Top of Book Currency: EURUSD

Hourly
24H break down

- Daily – charts each LP's daily average quoted spread per currency.
- Hourly - charts each LP's hourly average quoted spread per currency.
- 24H break down - charts each LP's hourly average quoted spread per currency broken down over a 24 hour GMT trading day average over the time period chosen.

Price Type

Clients can choose to plot

- **All** - aggregated, streams with the highest volume, independent of whether Single Ticket or sweep stream. This is the default.
- **Single Ticket**
- **Sweep**

Quant Analytics LC Historical Spreads

Display: Daily Price Type: All Amount: Top of Book

All
Single Ticket
Sweep

Amount

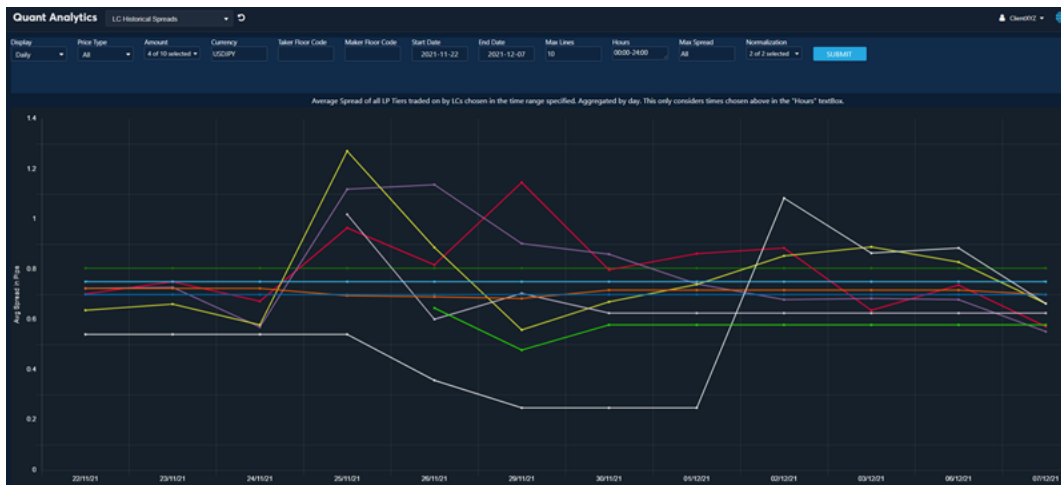
Client can choose to see any LP's quote stream from TOB to 50mil, clients can plot any or all fields, default is Top of the Book

Quant Analytics LC Historical Spreads

Display: Daily Price Type: All Amount: Top of Book Currency: USDJPY

Top of Book
Top of Book
≤ 1m
1-3m
3-5m
5-10m
10-15m
15-20m
20-30m
30-50m
50m+

For example here a single client has selected a single LP and can see their TOP USDJPY, 3m, 5m and 10 mil average spreads quoted through time.



Currency

Clients can choose to plot any currency which they have traded, and they will not see any spreads for which they have not traded.

Max Lines

Default is to plot up to 10 LP quotes, it will show the lowest 10 prices for the currency, amount and date range selected.

Hours

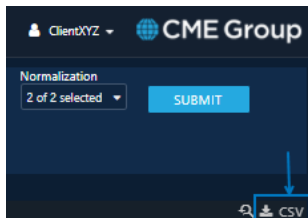
Default is to ignore data late in GMT trading day, but users can change to any hour range, eg 00:00-24:00 in hour (minute format HH:MM).

Max Spread

Clients can put a max rate on the quoted spread to cut off tails or wide prices outside of normal trading hours.

Print Table Data

Click the CSV button to export a chart to a data table.



Zoom Feature

Click the chart and hold the left mouse down to zoom in over any period, and press the magnifying glass on the right hand side to zoom back out. This can be useful when in hourly mode.

LC Market Impact

This dashboard is focused solely on LC (Liquidity Consumer clients) analysis of their trades on EBS Direct (EBSD) and EBS Select (EBSS).

Trades are analyzed from trade point to mid-market (EBS True Rate: a blended rate of EBSM and EBSD prices when available), and forward 30 seconds from mid-rate showing pure market impact. Trade view is locked to taker perspective with several

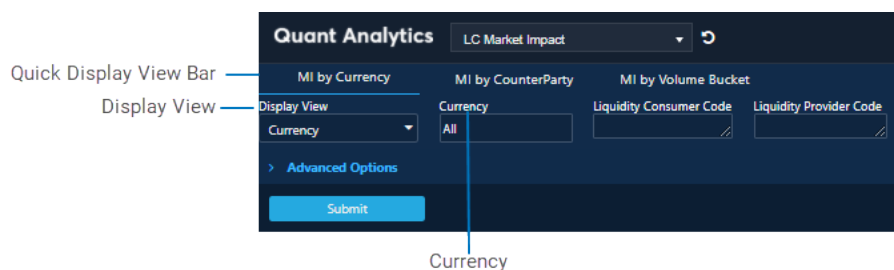
available dashboards, including Currency (Individual), LP Counterparty, LC Bank Codes, Day, Week, Hourly, Volume buckets and Trader.

Our analytics services allow clients to better manage and maintain bilateral liquidity relationships and to measure their own activity against market averages on a like-for-like basis and also to directly compare liquidity partners on a peer-to-peer basis.

This comparative analysis allows clients to independently compare their level of market impact compared to all clients in our ecosystem as well as their traded spreads. It also allows clients to quantifiably determine the effectiveness of their LP mix amongst their trade activity from a market impact and spread.

The symmetrical sharing of information (to the LC and the LP via Quant Analytics) allows a neutral transparency of information between makers and takers so that both are informed and aware of the trade activity and its impact. This allows for better conversations and understanding to occur about liquidity relationships and helps facilitate the building of long term liquidity relationships.

Command List – LC Market Impact

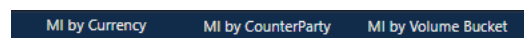


Quick Display View Bar

Click the Display View Quick link button to quickly navigate to that market impact view. The active market view is indicated by a blue line.

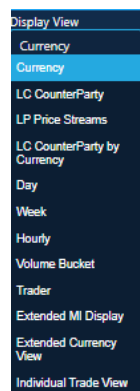
The three display views are

1. MI by Currency (Market Impact by Currency, Display View “Currency”)
2. MI by Counterparty (Market Impact by Counterparty, Display View “LP Counterparty”)
3. MI by Volume Bucket (Market Impact by Parent Order Volume Bucket traded, Display view “Volume Bucket”)




Display View – LC Market Impact

Allows the user to access dashboard features by choosing from various analytic views on the drop down.



- All MTM, Market Impact and Retained Spread numbers are in USD per million
- Options for display view include:
 - Currency: shows LC Market Impact by Currency (default view)
 - LP CounterParty: shows the Market Impact per Liquidity Provider counter party
 - LP Price Streams
 - LC CounterParty by Currency
 - Day
 - Week
 - Hourly
 - Volume Bucket
 - Trader
 - Extended MI Display
 - Extended Currency View
 - Individual Trade View

 **Note:**

- A loading sign will appear in the middle of the dashboard when loading dates. There are rules on how much data can be queried at any one time.
- All MTM, Market Impact and Retained Spread numbers are in USD per million.
- Not case sensitive.
- Click on any header column and sort in ascending or descending order; this preference is not saved or persisted when re-opening a dashboard.

Currency

Allows user to specify Currency for analysis, not case sensitive.

Shortcodes for groups of currencies are as follows:

- Default value is **TOP10** – Top 10 EBS currency pairs (based on volume).
- **ALL** – Will display the full list of currency pairs available on EBS.
- Individual Currency Pairs (Syms) – Can enter single pairs (e.g. **EURUSD**) or multiple pairs, delimited by commas (e.g. **EURUSD,USDJPY,USDCNH**)
- Individual Currencies (Syms) - Can enter single currencies (e.g **AUD**) and see all currencies with AUD in them, (e.g. **AUDUSD, AUDJPY, AUDCAD**, etc.)
- **TOP5** – Top 5 EBS currency pairs
- **NDF** – Will display NDF currency pairs
- **Skandi** or **Scandi** – Will display all scandi currencies, EM, LATAM, AEM for emerging markets
- **Com** – Will display all commonwealth currencies.

Start Date/End Date

Specify dates from the drop-down calendar for the data desired.

Liquidity Consumer Code

Allows inclusion / exclusion (using “!”) of user's individual LP Floor ID, or Institution code, or multiple IDs:

- Default is "", meaning all,
- Enter floor code or institution code, can be blank (does not need "")
- Can use Wildcards, e.g. T*** to select all floors starting with T
- Can use Exclusion, e.g. !T*** to exclude all floors starting with T
- Can choose multiple Floors separated by a comma
- Floor codes are not case sensitive
- Only LP Codes are available

Liquidity Provider Code

Allows entry / or exclusion (using "!") of individual Floor ID or institution, or multiple Id's:

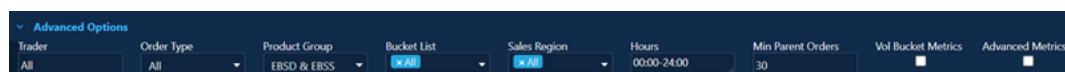
- Default is "", meaning all
- Allowed values follow same logic as for LC Code Order Type

>Advanced Options

Clicking on this allows the user to see more advanced views and features



Expanded View



Trader

Allows selection of Single or Multiple Trader ID.

Order Type

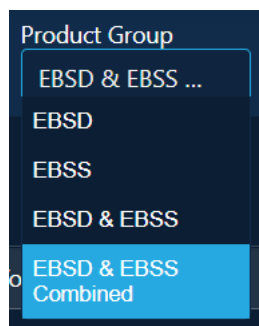
Allows selection of Single Ticket / Sweep or both from drop down.

Product Group

Allows user to select trading style:

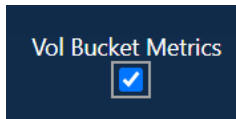
- EBSD (EBS Direct – disclosed relationship trading)
- EBSS (EBS Select – non-disclosed relationship trading)

Both EBSD, EBSS (Default) Click in Product Group field to display and select options.



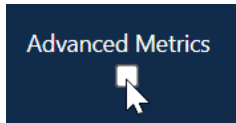
Volume Bucket Metrics

Allows user to select extra fields for display to show largest volume bucket traded and average trade size. Check to activate, then press Submit.



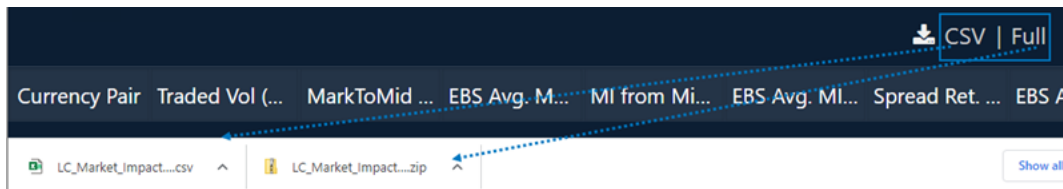
Advanced Metrics

Option to view additional metrics. Check to activate, then press Submit.



Export Data

Export analytic results by going to the right corner above data table and clicking either CSV or Full (for a complete data set).



Display View: Currency

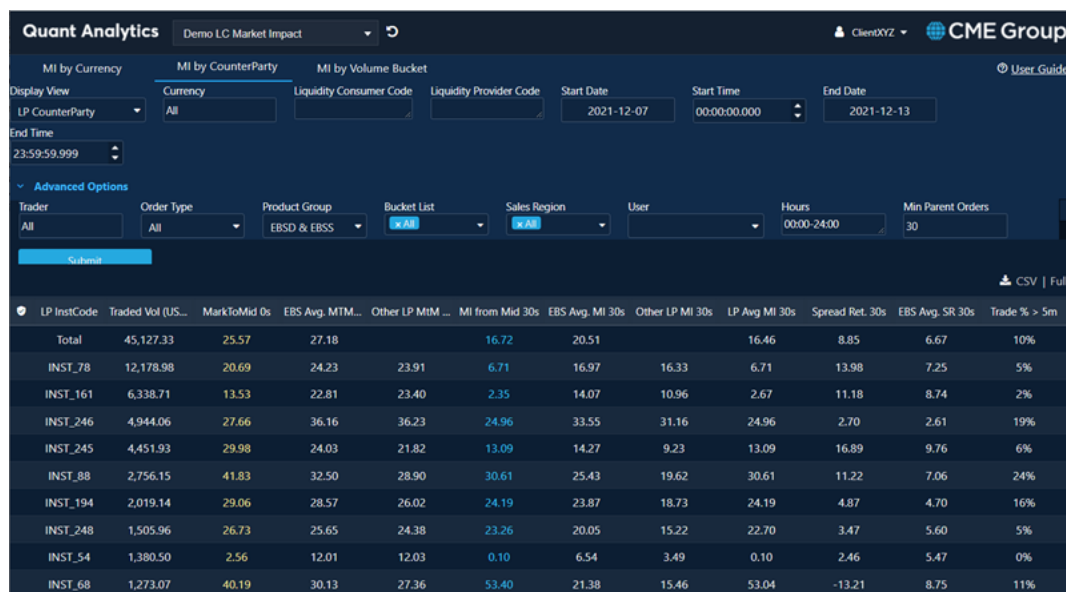
Default view showing the LC Market Impact by Currency. This view displays information about the individual client and how they compare to the market in general. Default sort order is descending by Volume.

Currency Pair	Traded Vol (USD m)	Mark to Mid 0's	EBS Avg. MTM 0's	MI from Mid 0's	EBS Avg. MI 0's	Spread Ret. 0's	EBS Avg. SR 0's	Trade % to 1m
Total	102,706.56	29.86	29.86	22.44	22.44	7.42	7.42	14%
EURUSD	28,385.25	14.45	14.45	9.81	9.81	4.64	4.64	23%
USDJPY	16,866.12	19.09	19.09	16.37	16.37	2.73	2.73	5%
USDCNH	8,436.67	18.46	18.46	12.14	12.14	6.31	6.31	5%
AUDUSD	7,295.67	31.67	31.67	27.42	27.42	3.65	3.65	5%
GBPUSD	7,177.96	24.12	24.12	24.65	24.65	-0.53	-0.53	20%
USDCAD	4,628.58	26.98	26.98	25.63	25.63	3.34	3.34	3%
EURGBP	3,625.73	29.53	29.53	24.44	24.44	5.09	5.09	14%
EURJPY	3,585.42	18.54	18.54	9.65	9.65	8.89	8.89	10%
KAUUSD	3,564.46	74.47	74.47	66.97	66.97	7.51	7.51	21%
USDCF	2,892.44	33.52	33.52	30.55	30.55	2.97	2.97	4%
USDZLB	2,090.24	154.37	154.37	130.24	130.24	4.13	4.13	36%
EURCHF	1,944.77	71.62	71.62	59.05	59.05	11.88	11.88	11%

Column	Description
Currency Pair	The Currencies selected.
Trade Vol (USD m)	The USD volume you have traded with your LPs in total and by Currency.
Mark to Mid 0's	Amount you were charged on average in USD per million. LC mark to market on initial trades from traded price to mid-market at time of trade, mark to market at t0, it represents approximately 50% of the traded spreads on average.
EBS Average MTM 0's	Amount most LC's across the whole EBS system were charged for similar trades compared to yours. Are you charged more or less than your peers? EBS Average Mark to Mid-market based on your blend of traded Currencies and Volumes.

Column	Description
MI from Mid 30s	How the market moves when you trade with your LP's. The LC's average market impact at 30 seconds measured from mid-market at t0.
EBS Average MI 30s	How the market moves when most Clients do similar trades; i.e. are you moving the market more or less? Does this align with what you are being charged? EBS Average MI at 30s based on your blend of traded Currencies and Volume.
Spread Retention 30s	How much your LP's retain of their traded spread after 30 seconds. MTM at t0 minus MI from mid at 30s.
EBS Average Spread Retention at 30s	How much most LP's retain of their traded spread after 30s for similar trades. How sustainable is your flow with your liquidity providers? EBS Average MTM at t0 minus average MI at 30 sec based on your blend of traded Currencies and Volumes.
Large Trade %	Shows at a glance the rough distribution of your parent orders. Are you trading more big tickets or less?" The percentage of your Parent orders that were greater than 5 mil USD.

Display View: LP CounterParty



LP InstCode	Traded Vol (US...)	MarkToMid Ds	EBS Avg. MTM...	Other LP MtM ...	MI from Mid 30s	EBS Avg. MI 30s	Other LP MI 30s	LP Avg MI 30s	Spread Ret. 30s	EBS Avg. SR 30s	Trade % > 5m
Total	45,127.33	25.57	27.18		16.72	20.51		16.46	8.85	6.67	10%
INST_78	12,178.98	20.69	24.23	23.91	6.71	16.97	16.33	6.71	13.98	7.25	5%
INST_161	6,338.71	13.53	22.81	23.40	2.35	14.07	10.96	2.67	11.18	8.74	2%
INST_246	4,944.06	27.66	36.16	36.23	24.96	33.55	31.16	24.96	2.70	2.61	19%
INST_245	4,451.93	29.98	24.03	21.82	13.09	14.27	9.23	13.09	16.89	9.76	6%
INST_88	2,756.15	41.83	32.50	28.90	30.61	25.43	19.62	30.61	11.22	7.06	24%
INST_194	2,019.14	29.06	28.57	26.02	24.19	23.87	18.73	24.19	4.87	4.70	16%
INST_248	1,505.96	26.73	25.65	24.38	23.26	20.05	15.22	22.70	3.47	5.60	5%
INST_54	1,380.50	2.56	12.01	12.03	0.10	6.54	3.49	0.10	2.46	5.47	0%
INST_68	1,273.07	40.19	30.13	27.36	53.40	21.38	15.46	53.04	-13.21	8.75	11%

“LP Counterparty” shows the Market Impact per counterparty. Default sort order is by descending trade volume.

- Users can drill down Floor by Floor or view by Institution codes that they have access to
- Clients can see these codes by leaving the LP code box empty and changing display view to “LP Price Streams”

Clients can drill down by one or more LPs by inputting their code into the LP code box selected, (client can be empty or overridden).

Enter one Client and one or more Counterparty, e.g. Client_6149 client and INST_195, INST_193, shows all LP individual net volumes, spreads, retention, Market Impact and parent order analysis for just those LP trades.

Column	Description
LP Institute Code	A single EBS code applied to multiple floors under an Institution.

Column	Description
LP Institution Name	The LP's Disclosed trading name or non-disclosed ID tag.
Traded Vol (USD m)	The USD volume traded with each LP.
Mark to Mid 0's	Amount you were charged on average by each LP. LC mark to market on initial trades from traded price to mid-market at time of trade, mark to market at t0, it represents approximately 50% of the traded spreads on average.
EBS Average MTM 0's	Amount most LC's across the whole EBS system were charged for similar trades. Are you charged more or less than most? EBS Average Mark to Mid-market based on your blend of traded Currencies and Volumes traded with this LP
Other LP's MTM 0's (excluding this LP)	What other LP's you traded with charged you for similar trades. Do I cross more or less spread with this LP compared to my other LP's? The Average MTM calculated from your trades with other LP's, based on your traded Currencies and Volume blend with this LP.
MI from Mid 30s	How the market moves when you trade with each LP. The LC's average market impact at 30 sec measured from mid-market at t0 with this LP.
EBS Average MTM 30's	How the market moves when most Clients do similar trades, are you moving the market or not? Does this align with what you are being charged?"How the market moves when most Clients do similar trades, are you moving the market or not? Does this align with what you are being charged?" EBS Average MI at 30 sec based on your traded Currencies and Volume blend with this LP.
Other LP's MTM 30's (excluding this LP)	The market impact your other LP's you traded with experienced for similar trades. Do my trades cause more or less market impact with this LP compared to my other LP's? The Average market impact at 30 sec calculated from your trades with other LP's, based on your traded Currencies and Volume blend with this LP.
Spread Retention 30s	How much each of your LP's retain of their traded spread after 30 seconds. MTM at t0 minus MI from mid at 30 sec.
EBS Average Spread retention at 30s	How much most LP's retain of their traded spread after 30 seconds for similar trades. How sustainable is your flow with your liquidity providers? EBS Average MTM at t0 minus average MI at 30 sec based on your traded Currencies and Volume blend with each LP.
Large Trade %	Shows you, at a glance, the rough distribution of your Parent orders size for which this LP was involved in a trade. Are you trading more big tickets or less with this LP? The percentage of your Parent orders that were greater than 5 mil USD which resulted in trades with this LP.

Display View: Volume Bucket

Quant Analytics									
LC Market Impact									
ClientXYZ CME Group									
<div> <div>MI by Currency</div> <div>MI by CounterParty</div> <div>MI by Volume Bucket</div> </div> <div> <div>Display View</div> <div>Volume Bucket</div> </div> <div> <div>Currency</div> <div>All</div> </div> <div> <div>Liquidity Consumer Code</div> <div></div> </div> <div> <div>Liquidity Provider Code</div> <div></div> </div> <div> <div>Start Date</div> <div>2021-10-25</div> </div> <div> <div>Start Time</div> <div>00:00:00.000</div> </div> <div> <div>End Date</div> <div>2021-10-31</div> </div> <div> <div>End Time</div> <div>23:59:59.999</div> </div> <div> <div>Advanced Options</div> <div>Submit</div> </div> <div> <div>CSV</div> <div>Full</div> </div>									
Volume Bucket	Traded Vol (USD m)	% of Total	EBS % of Total	MarkToMid 0s	EBS Avg. MTM 0s	MI from Mid 30s	EBS Avg. MI 30s	Spread Ret. 30s	EBS Avg. SR 30s
Total	103,106.56	100%	100%	29.86	29.86	22.44	22.44	7.42	7.42
1: <=1m	31,775.32	31%	31%	20.61	20.61	9.87	9.87	10.74	10.74
2: 1-3m	39,107.47	38%	38%	22.66	22.66	12.03	12.03	10.64	10.64
3: 3-5m	17,732.93	17%	17%	36.97	36.97	40.83	40.83	-3.86	-3.86
4: 5-10m	11,018.08	11%	11%	45.46	45.46	45.21	45.21	0.24	0.24
5: 10-15m	1,539.18	1%	1%	67.41	67.41	53.17	53.17	14.23	14.23
6: 15-20m	414.82	0%	0%	96.55	96.55	100.12	100.12	-3.57	-3.57
7: 20-30m	736.03	1%	1%	76.33	76.33	37.12	37.12	39.21	39.21
8: 30-50m	465.72	0%	0%	296.60	296.60	271.73	271.73	24.87	24.87
9: 50m+	317.01	0%	0%	136.32	136.32	97.61	97.61	38.71	38.71

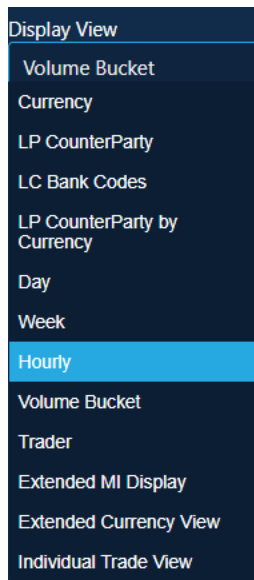
This shows the Market Impact aggregated by LC's parent order Volumes, and shows the market impact for true volume traded; e.g. if a client bought 20 million in twenty 1 million tickets, this will show as a 20 million trade. The default sort order is by Volume Bucket.

This analysis helps the LC identify and monitor their spreads and market impact by transaction size, generally the larger the trade size (especially on sweep), the larger the impact.

It also allows the LC to compare their trades across volume buckets to the EBS community overall.

Column	Description
Volume Bucket	LC parent order trade size (based on traded volumes).
% of Total	The percentage of the Parent orders that were in each bucket.
EBS Average Spread retention at 30s	How much most LPs retain of their traded spread after 30 seconds for similar trades. How sustainable is your flow with your liquidity providers? EBS Average MTM at t0 minus average MI at 30 secs based on your traded Currencies and Volume blend with each LP.
EBS % of Total	The percentage of Parent orders that were in each bucket across the whole community; in the case above it doesn't equal 100%, this tells the client that 11% of trades were in larger bucket sizes (which the LC did not trade in).

Additional Display Views



Display View	Description
Day	Shows the Market Impact aggregated by days traded. Currently our system works on a GMT 24 hr day.
Week	Shows the Market Impact aggregated by weeks traded. The start date for the week is always the Sunday before the start date, so will have slightly different numbers.
Hourly	Shows the Market Impact aggregated by hour of the day GMT Time. Currently our system works on a GMT 24 hr day; will move to a NY business day in the future.
Trader	Shows the Market Impact aggregated by trader of the LC. • You can also specify a single or multiple trader in the individual Trader Input box at the top. Once entered, you can run any of the individual display views on any individual trader or group of traders.
Extended MI Display	Shows the Market Impact per counterparty, across more detailed time periods from 1 second, 3 seconds, 5 seconds etc. We also have an average market impact for every second up to 60, 300 and 600 seconds.
Extended Currency View	Shows the Market Impact per currency, broken down across more detailed time periods from 1 second, 3 seconds, 5 seconds etc. We also have an average market impact for every second 60, 300 and 600 seconds.

LP Market Impact

The Market Impact analysis is focused solely for LP (Liquidity Provider clients) analysis of their trades on EBS Direct (EBSD) and EBS Select (EBSS).

Trades are analysed from trade point to mid-market (EBS True Rate: a blended rate of EBSM and EBSD prices when available), and forward 30 seconds from mid-rate showing pure market impact. Trade view is locked to taker perspective with several available dashboards, including: Currency (Individual), LP Counterparty, LP Floor View, Day, Week, Hourly, Volume buckets and Trader, and Individual Trade view.

Our analytics services allow clients to better manage and maintain bilateral liquidity relationships and to measure their own activity against market averages on a like-for like basis and to also to directly compare liquidity partners on a peer-to-peer basis.

This comparative analysis allows clients to independently compare their level of market impact compared to all clients in our ecosystem as well as their traded spreads. It also allows to quantifiably determine the effectiveness of their LC mix amongst their trade activity from a market impact and spread.

The symmetrical sharing of information (to the LC and the LP via Quant Analytics) allows a neutral transparency of information between makers and takers so that both are informed and aware of the trade activity and its impact. This allows for better conversations and understanding to occur about liquidity relationships and we can help facilitate the building of long term liquidity relationships.

Command List – LP Market Impact

Currency Pair	Traded Vol (USD m)	MarkToMid 0s	EBS Avg. MTM 0s	MI from Mid 30s	EBS Avg. MI 30s	Spread Ret. 30s	EBS Avg. SR 30s	Trade % > 5m
Total	103,207.15	29.93	29.93	22.39	22.39	7.54	7.54	13%
EURUSD	26,727.72	13.78	13.78	9.25	9.25	4.52	4.52	23%
USDJPY	17,713.11	19.57	19.57	17.16	17.16	2.41	2.41	5%
USDCNH	8,356.89	18.83	18.83	12.86	12.86	5.97	5.97	5%
GBPUSD	7,805.02	25.54	25.54	26.64	26.64	-1.10	-1.10	21%

Display View Shortcut

The active market view is indicated by a blue underline. Click a link to navigate to that market impact (MI) view:

- MI by Currency (Market Impact by Currency, Display View “Currency”)
- MI by Counterparty (Market Impact by Counterparty, Display View “LP Counterparty”)
- MI by Volume Bucket (Market Impact by Parent Order Volume Bucket traded, Display view “Volume Bucket”)

MI by Currency	MI by CounterParty	MI by Volume Bucket
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Display View – LP Market Impact

Use the Display View drop-down to access various analytic views.

Display View	Currency
Currency	All
Currency	
LC CounterParty	
LP Price Streams	Order Type
LC CounterParty by Currency	All
Day	
Week	der and drop
Hourly	
Volume Bucket	Traded Vo
Trader	103,20
Extended MI Display	26,72
Extended Currency View	17,71
Individual Trade View	8,35

- All MTM, Market Impact and Retained Spread numbers are in USD per million
- Options for display view include:
 - Currency: shows LP Market Impact by Currency. Default View.
 - LC Counterparty: shows the Market Impact per Liquidity Consumer counterparty.
 - LP Price Streams
 - LC CounterParty by Currency
 - LP Bank Code
 - Day
 - Week
 - Hourly
 - Volume Bucket
 - Trader
 - Extended MI Display
 - Extended Currency View
 - Individual Trade View



Please Note:

- A loading sign will appear in the middle of the dashboard when loading dates. There are rules on how much data you can query at any one time.
- All MTM, Market Impact and Retained Spread numbers are in USD per million.
- Not case sensitive.
- Click on any header column and sort in ascending or descending order; this is not saved or persisted when re-opening a dashboard.

Currency

Allows user to specify Currency for analysis, not case sensitive.

Shortcodes for groups of currencies are as follows:

- Default value is **TOP10** – Top 10 EBS currency pairs (based on volume).
- **ALL** – Will display the full list of currency pairs available on EBS.
- Individual Currency Pairs (Syms) – Can enter single pairs (e.g. **EURUSD**) or multiple pairs, delimited by commas (e.g. **EURUSD,USDJPY,USDCNH**)
- Individual Currencies (Syms) - Can enter single currencies (e.g **AUD**) and see all currencies with AUD in them, (e.g. AUDUSD, AUDJPY, AUDCAD, etc.)
- **TOP5** – Top 5 EBS currency pairs
- **NDF** – Will display NDF currency pairs
- **Skandi** or **Scandi** – Will display all scandi currencies, EM, LATAM, AEM for emerging markets
- **Com** – Will display all commonwealth currencies.

Start Date/End Date

Specify dates from the drop-down calendar for the data you want.

Liquidity Consumer Code

Allows inclusion / exclusion (using “!”) of your individual LP Floor ID, or Institution code, or multiple Id’s:

- Default is “”, meaning all,
- Enter floor code or institution code, can be blank (does not need “ ”)
- Can use Wildcards, e.g. T*** to select all floors starting with T
- Can use Exclusion, e.g. !T*** to exclude all floors starting with T
- Can choose multiple Floors separated by a comma
- Floor codes are not case sensitive
- Only LP Codes are available

Liquidity Provider Code

Allows entry / or exclusion (using “!”) of individual Floor ID or institution, or multiple Id’s:

- Default is “”, meaning all
- Allowed values follow same logic as for LC Code Order Type

> Advanced Options

Click to see more advanced views and features.

> **Advanced Options**

Expanded View

Advanced Options							
Trader	Order Type	Product Group	Bucket List	Sales Region	Hours	Min Parent Orders	Vol Bucket Metrics
All	All	EBSD & EBSS	<input checked="" type="checkbox"/> All	<input checked="" type="checkbox"/> All	00:00-24:00	30	<input type="checkbox"/> <input checked="" type="checkbox"/>

Trader

Allows selection of Single or Multiple Trader ID.

Order Type

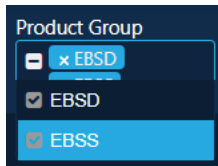
Allows selection of Single Ticket / Sweep or both from drop down.

Product Group

Allows user to select trading style:

- EBSD (EBS Direct – disclosed relationship trading)
- EBSS (EBS Select – non-disclosed relationship trading)

Both EBSD, EBSS (Default) Click in Product Group field to display and select options.



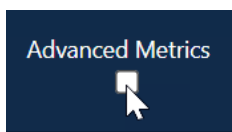
Volume Bucket Metrics

Allows user to select extra fields for display to show largest volume bucket traded and average trade size. Check to activate, then press Submit.



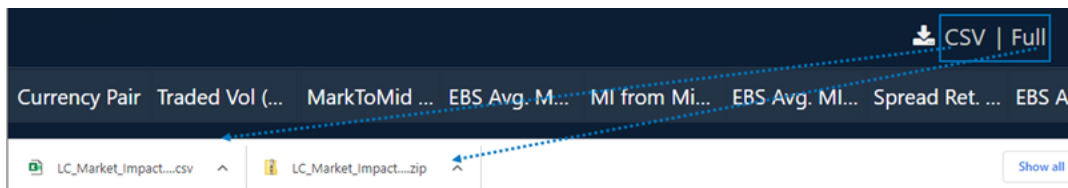
Advanced Metrics

Option to view additional metrics. Check to activate, then press Submit.



Export Data

Export analytic results by going to the right corner above data table and clicking either CSV or Full (for a complete data set).



Display View: Currency

Default view showing the LP Market Impact by Currency. This view (shown below) displays information about the individual client and how they compare to the market in general. Default sort order is descending by Volume.

Currency Pair	Traded Vol (USD M)	MarkToMid (s)	EBS Avg. M/M (s)	MI from Mid (s)	EBS Avg. MI (s)	Spread Ret. (s)	EBS Avg. MI (s)	Trade % - 1m
Total	72,518.96	24.38	24.38	17.85	17.85	6.43	6.43	100%
EURUSD	24,514.30	17.47	17.47	13.37	13.37	4.10	4.10	27%
USDJPY	14,516.87	21.41	21.41	15.72	15.72	5.70	5.70	6%
GBPUSD	4,305.00	26.71	26.71	21.82	21.82	4.80	4.80	20%
USDCHF	5,758.75	19.52	19.52	11.14	11.14	8.38	8.38	7%
AUDUSD	5,661.16	42.55	42.55	29.19	29.19	13.36	13.36	0%
EURJPY	4,439.26	28.48	28.48	17.59	17.59	10.89	10.89	25%
EURGBP	4,311.25	25.99	25.99	11.15	11.15	14.84	14.84	10%
USDCAD	4,076.07	25.40	25.40	27.87	27.87	-2.57	-2.57	1%
MXNUSD	2,123.43	73.94	73.94	64.73	64.73	9.21	9.21	12%
USDHKD	807.86	10.10	10.10	0.85	0.85	9.25	9.25	13%

Column	Description
Currency Pair	The Currencies selected.
Trade Vol (USD m)	The USD volume you have traded with your LC's in total and by Currency.
Mark to Mid 0's	Amount you were charged on average in USD per million. LP mark to market on initial trades from traded price to mid-market at time of trade, mark to market at t0, it represents approximately 50% of the traded spreads on average.
EBS Average MTM 0's	Amount most LC's across the whole EBS system were charged for similar trades compared to yours. Are you charging more or less than your peers? EBS Average Mark to Mid-market based on your blend of traded Currencies and Volumes.
MI from Mid 30s	How the market moves when you trade with your LC's. The LP's average market impact at 30 seconds measured from mid-market at t0.
EBS Average MI 30s	How the market moves when most Clients do similar trades; i.e. Are these trades moving the market more or less? Does this align with what you are charging your clients? EBS Average MI at 30s based on your blend of traded Currencies and Volume.
Spread Retention 30s	How much your LP's retain of their traded spread after 30 seconds. MTM at t0 minus MI from mid at 30s.
EBS Average Spread Retention at 30s	How much most LP's retain of their traded spread after 30s for similar trades. How sustainable is your flow with your liquidity consumers? EBS Average MTM at t0 minus average MI at 30 sec based on your blend of traded Currencies and Volumes.
Large Trade %	Shows at a glance the rough distribution of your LC parent orders. Are you involved in trading more big tickets or less?" The percentage of your LC's Parent orders that were greater than 5 mil USD.

Display View: LC Counterparty

LC Counterparty shows the Market Impact per counterparty. Default sort order is by descending trade volume.

Users can drill down Floor by Floor or view by Institution codes that they have access to. Clients can see these codes by leaving the LP code box empty and changing display view to "LP Price Streams."

LP FloorCode	LP Region	LC FloorCode	LC InstCode	Traded Vol (USD)	Mid Share %	MarkToMid 0s	EBS Avg. MTM ...	MI from Mid 30s	EBS Avg. MI 30s	LC Avg MI 30s	Spread Ret. 30s	EBS Avg. SR 30s	Trade % > 5m
Total	Total	Total	Total	43,802.81	100%	30.32	30.30	17.57	20.07	17.68	12.75	10.23	13%
CLIENT_1011	NY	CLIENT_2394	INST_435	4,189.87	61%	17.33	16.69	0.19	7.87	-1.44	17.14	8.81	1%
CLIENT_1411	NY	CLIENT_2394	INST_435	2,119.30	31%	22.06	20.52	2.16	8.50	2.22	19.91	12.02	0%
CLIENT_4976	LN	CLIENT_7104	INST_1225	2,072.62	23%	19.85	21.70	0.89	8.10	5.22	18.96	13.60	0%
CLIENT_6386	LN	CLIENT_7104	INST_1225	1,755.55	19%	15.29	16.43	11.10	7.74	6.88	4.18	8.68	0%
CLIENT_6576	LN	CLIENT_7104	INST_1225	1,436.17	16%	24.57	22.64	10.20	8.10	4.58	14.38	14.54	0%
CLIENT_6688	LN	CLIENT_7104	INST_1225	892.13	10%	23.12	20.77	2.69	7.23	2.53	20.43	13.55	0%
CLIENT_245	NY	CLIENT_4347	INST_811	809.46	100%	-0.65	8.37	-0.60	1.26	-0.07	-0.05	7.12	0%
CLIENT_6675	LN	CLIENT_7104	INST_1225	643.55	7%	16.41	18.23	7.28	8.46	5.79	9.14	9.77	0%
CLIENT_982	NY	CLIENT_2401	INST_439	609.71	35%	3.40	24.89	2.36	13.60	0.25	1.04	11.29	1%

Column	Description
LP FloorCode	Your assigned LP Tier. Confirm whether the client on the correct stream. Displays the LP Stream that the client is on
LP Region	The region you are quoting this client from.
LC	The Floor code of the client you have traded with. You can view one client's trades by inputting the client's floor

Column	Description
FloorCode	code in the counterparty field.
LC Institute Code	Amount you were charged on average by each LP. LC mark to market on initial trades from traded price to mid-market at time of trade, mark to market at t0, it represents approximately 50% of the traded spreads on average.
LC Institution name	The client's trading name. This could be a client ID if the client is trading via EBS Select.
Traded Volume (USD m)	The volume in USD you have traded with your LC's.
Mkt Share Rank	This is the share of the LC's wallet you received. Does this LC have a relevant amount of business to do, are you winning enough share or too much? Your Traded Volume ranking position based on traded volume of client trades. The rankings are based on trading wallet share, low = approx. 0-5%, high >30%.
Mark to Mid 0's	Amount you charge each LC. LP Initial Margin on trades, mark to market at t0.
EBS Average MTM 0's	Amount most LP's charge for similar trades. Are you relative wide or tight? Does this fit with the Volume Ranking? EBS Average Mark to Mid-market based on your blend of traded Currencies and Volumes traded with this LC
MI from Mid 30s	How the market moves when you trade with each LC. The LP's average market impact at 30 sec measured from mid-market at t0.
EBS Average Spread MI 30s	How the market moves for similar trades. Is the LC moving the market or not compared to average? Does this fit with the LC charges and t0 spread? EBS Average MI at 30 sec based on your blend of traded Currencies and Volumes with this LC.
Spread Retention 30s	How much you retain of your initial margin after 30 seconds with each LC. MTM at t0 minus MI from mid at 30 sec.
EBS Average Spread Retention at 30s	How much most LP's retain of their initial margin after 30 seconds for similar trades. Are you profitable compared to your peers? EBS Average MTM at t0 minus average MI at 30 sec based on your traded blend of traded Currencies and Volumes.
Large Trade %	Shows you at a glance the rough size distribution of your clients' Parent orders which reach you. Are you getting more flow from big ticket trades or smaller ones? Do I have the client on the right tier for their average volume mix? Does this correlate with my retained spread percentage?" The percentage of your traded flow that originated from client Parent orders that were greater than 5 mil USD.

Clients can drill down by one or more LPs by inputting their code into the LP code box selected, (client can be empty or overridden).

Enter one Client and one or more Counterparty, e.g. Inst_197 (LP) client and Client_6129, Client_1121 (LC's), shows all LC individual net volumes, spreads, retention, Market Impact and parent order analysis for just those LC trades.

Display View: LP Price Streams

LP Price Streams shows the Market Impact per LP Price stream. Default sort order is by descending trade volume. Clients can drill down Floor by Floor or view by Institution codes that they have access to.

The columns are the same for LC Counterparty dashboard.

Display View: Volume Bucket

This shows the Market Impact aggregated by LC's parent order Volumes, shows the market impact for true volume traded, e.g. a client may have bought 20 mil in 20 1 mil tickets, this will show as a 20 mil trade, the default sort order is by Volume Bucket, example.

This analysis helps the LC/LP identify and monitor their spreads and market impact by transaction size; generally, the larger the trade size (especially on sweep), the larger the impact.

It also allows the LC to compare their trades across volume buckets to the EBS community overall.

Column	Description
Volume Bucket	LC parent order trade size (based on traded volumes).
% of Total	The percentage of the Parent orders that were in each bucket.
EBS % of Total	The percentage of Parent orders that were in each bucket across the whole community; in the case above it doesn't equal 100%, this tells the client that 11% of trades were in larger bucket sizes (which the LC did not trade in).

Additional Display Views

Display View	Description
Day	Shows the Market Impact aggregated by days traded. Currently our system works on a GMT 24 hr day.
Week	Shows the Market Impact aggregated by weeks traded. The start date for the week is always the Sunday before the start date, so will have slightly different numbers.
Hourly	Shows the Market Impact aggregated by hour of the day GMT Time. Currently our system works on a GMT 24 hr day; will move to a NY business day in the future.
Trader	Shows the Market Impact aggregated by trader of the LC. You can also specify a single or multiple trader in the individual Trader Input box at the top. Once entered, you can run any of the individual display views on any individual trader or group of traders.
Extended MI Display	Shows the Market Impact per counterparty , across more detailed time periods from 1 second, 3 seconds, 5 seconds etc. We also have an average market impact for every second up to 60, 300 and 600 seconds.
Extended Currency View	Shows the Market Impact per currency , broken down across more detailed time periods from 1 second, 3 seconds, 5 seconds etc. We also have an average market impact for every second 60, 300 and 600 seconds.
Individual Trade View	Produces a trade by trade view, which natively shows 2000 rows but can be fully exported to CSV (up to 1 million rows); all Market Impact details for deeper custom analysis.

LC Alpha Report

1 Introduction

The LC Alpha Report dashboard allows clients to see at a glance what is the instantaneous added value of every LP that they trade with along with their reject rates and LP Hold times on orders, all compared to EBS Averages.

This dashboard is designed to assist the LC focus on problem areas where LPs quote non-differentiated pricing, or have high cost of rejects which are costing the LC in terms of execution efficiencies.

It also allows the LC to monitor LPs hold times (often associated with last look) and engage in conversations with the LPs to better manage their liquidity supply.

Another benefit is that we allow the LC to see an order by order breakdown of the full Transaction Cost Analysis (TCA). The data is exportable to Excel which shows next best prices available for each successful match as well as comparison to EBSM best liquidity at that point of time.

By default, LP Pass-through trades are excluded from Alpha calculation because Orders are routed to specific LPs bypassing any competitive price matching by EBS and so notional Gross Alpha value would be 0. There is an option to include LP Pass-through trades into the report.

Note: All report screen shots shown here are using hidden floor and institution codes, for illustration purposes only and to show functionality (actual Floor Codes and Institution codes are four character alphanumeric codes).

2 Configuration

Configuration of the views consists of the following:

- Selection of the groupings used to display data
- Setting filters to select trade data
- (Optionally) selecting additional data

2.1 Display View Selection

The Display Views determine how the trade data is grouped. Each of these groupings is detailed in [Data Display](#). Options include:

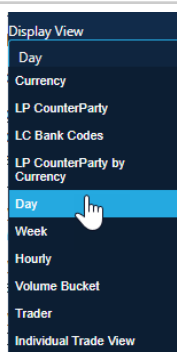
- [Currency](#)
- [LP CounterParty](#)
- [LC Bank Codes](#)
- [LP CounterParty by Currency](#)
- [Day](#)
- [Week](#)
- [Hourly](#)
- [Volume Bucket](#)
- [Trader](#)
- [Individual Trade View](#)

 **To select views from the display view dropdown**

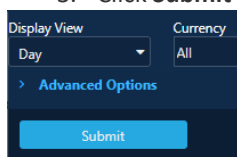
- Click the arrow in the Currency box to see a list of view options. The default view is [Currency](#).



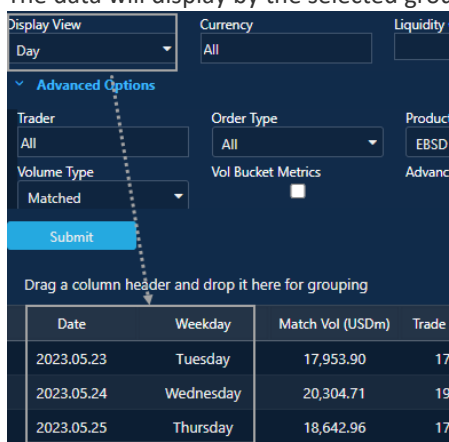
- Scroll the list to choose a display option.



3. Click **Submit** to confirm.



The data will display by the selected grouping.



To use the Quick Display Views

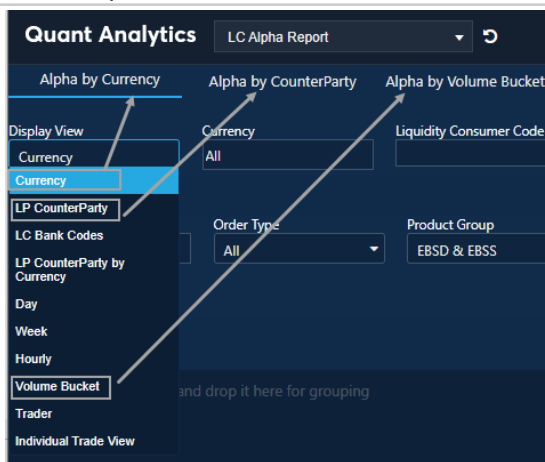
Three of the most commonly used views can be accessed using the short-cut links.

- Click a Display View Quick link to quickly navigate to that specific view.

The three main display views are:

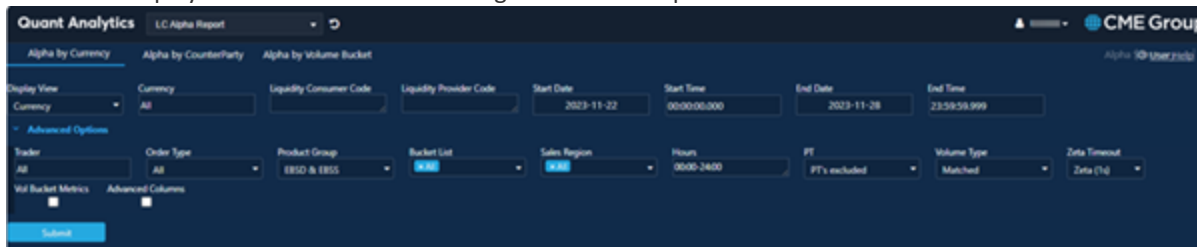
- Alpha by Currency ([Display View: Currency](#))
- Alpha by CounterParty ([Display View: LP CounterParty](#))
- Alpha by Volume Bucket ([Display View: Volume Bucket](#))

The active view is indicated by a blue line:



2.2 Data Selection

Each main display view has filters for selecting the data to be presented. Refer to the sections that follow for details.



2.2.1 Currency

Allows user to specify Currency for analysis, not case sensitive.

Shortcodes for groups of currencies are as follows:

- Default value is **TOP10** – Top 10 EBS currency pairs (based on volume).
- **ALL** – will display the full list of currency pairs available on EBS.
- Individual Currency Pairs (Syms) – can enter single pairs (e.g. **EURUSD**) or multiple pairs, delimited by commas (e.g. **EURUSD, USDJPY, USDCNH**)
- Individual Currencies (Syms) - can enter single currencies (e.g **AUD**) and see all currencies with AUD in them, (e.g. **AUDUSD, AUDJPY, AUDCAD, etc.**)
- **TOP5** – Top 5 EBS currency pairs
- **NDF** – will display NDF currency pairs
- **Skandi** or **Scandi** – will display all Scandi currencies, EM, LATAM, AEM for emerging markets
- **Com** – will display all commonwealth currencies.

2.2.2 Liquidity Consumer Code

Allows inclusion / exclusion (using “!”) of your individual LP Floor ID, or Institution code, or multiple IDs:

- Default is “”, meaning all
- Enter floor code or institution code; can be blank (does not need “ ”)
- Can use Wildcards, e.g. T*** to select all floors starting with T
- Can use Exclusion, e.g. !T*** to exclude all floors starting with T
- Can choose multiple Floors separated by a comma

- Floor codes are not case sensitive
- Only LP Codes are available

2.2.3 Liquidity Provider Code

Allows entry / or exclusion (using “!”) of individual Floor ID or institution, or multiple IDs:

- Default is “”, meaning all
- Allowed values follow same logic as for LC Code field

2.2.4 Start Date/Start Time

Specify dates and times for the data you want to see.

2.2.5 >Advanced Options

Clicking on this allows the user to see more advanced views and features.

> **Advanced Options**

Expanded View



2.2.6 Trader

Allows selection of Single or Multiple Trader ID.

2.2.7 Order Type

Allows selection of Single Ticket / Sweep or both from drop down.

2.2.8 Product Group

Allows user to select trading style:

- EBSD (EBS Direct – disclosed relationship trading)
- EBSS (EBS Select – non-disclosed relationship trading)

Click in Product Group field to display and select options. By default, both EBSD, EBSS are selected.



2.2.9 Bucket List

The volume buckets for the size of individual orders included in the report:

- All
- 1: <=1m
- 2: 1-3m
- 3: 3-5m

- 4: 5-10m
- 5: 10-15m
- 6: 15-20m
- 7: 20-30m
- 8: 30-50m
- 9: 50m

2.2.10 Sale Region

- All
- Americas
- Asia & Oceania
- Japan
- EMEA

2.2.11 Hours

Reports trades occurring within these hours only. Start Date + Start Time and End Date + End Time determine the start and end of the overall reporting period. Determines the hours for each day within the reporting period for which trades will be reported.

2.2.12 PT

Allows user to specify if LP Pass-through orders which bypass EBS matching logic are included into average Alpha calculations. For all LP Pass-through orders Alpha is set to '0'. By default LP Pass-through orders are excluded when calculating average Alpha values.

2.2.13 Volume Type

Allows user to switch the volume base against which metrics are calculated. Two options are available:

- **Matched** (default): volume submitted by LC which was matched to LP quote
- **Submitted**: all volume submitted by LC to EBS, including any which was not matched to any LPs

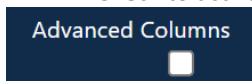
2.2.14 Zeta Calculation Timeout

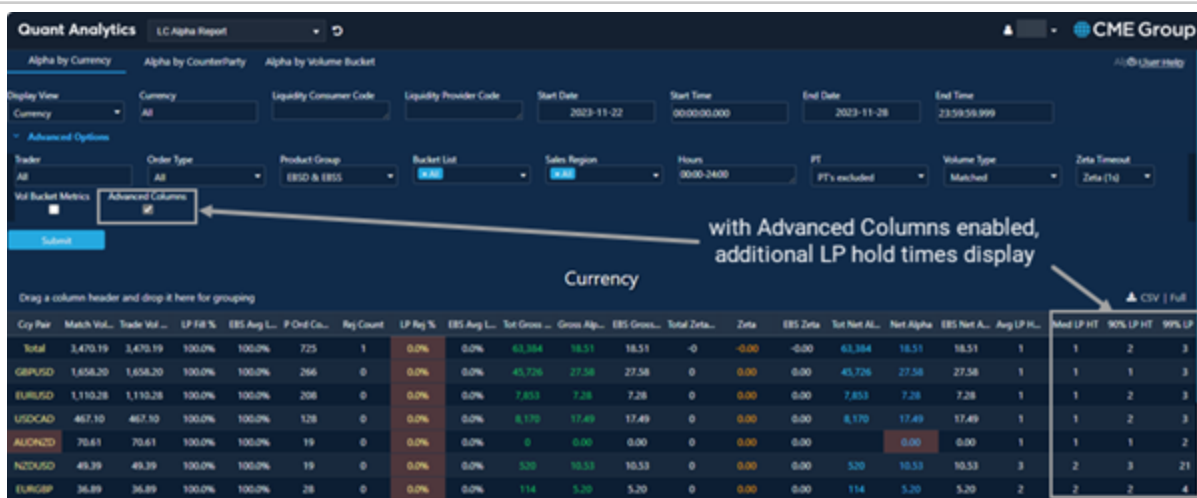
The delay used to calculate zeta values (see Total Zeta (USD) column).

2.3 Advanced Columns

Allows user to view more columns of data including additional LP hold time data.

- Check to activate, then press **Submit**. See [Advanced Columns](#) for more information.





3 Data Display

3.1 Data Columns

3.1.1 Data Columns Common to Alpha Display Views

The table below displays columns of data are shared by the three primary views except for Individual Trade View. For additional metrics, refer to the [Advanced Columns](#) section.

Column	Metric	Description
Match Vol (USD m)	Matched Volume	The volume has been matched by EBS and sent to LPs as proposed trades.
Trade Vol (USD m)	Traded Volume	The volume you have traded with your LPs in total and by selected display view.
LP Fill %	LP Fill Percentage	The percentage of your matched volume which was filled by LPs. This is how successful you are filling your matched orders with your LPs.
EBS Avg LP Fill %	EBS Average LP Fill Percentage	The EBS Average LP Fill ratio based on your blend of Currencies and Volumes matched to LPs. This is how successful most LCs are across whole EBS system in getting their matched orders filled with their LPs for similar trades to you. Is your experience better or worse than for most?
Rej Count	Count of Rejects	The number of times Trade Proposals have been rejected by LPs. This is how many times in the selected time your trade attempts were rejected by LP.
LP Rej %	LP Reject Percentage	The percentage of matched Trades volume which has been rejected by specific LP. What is the proportion of your trade volume this LP has Rejected? The three highest reject ratios are highlighted.
EBS Avg LP Rej	EBS Average LP Reject	The EBS Average Ratio of LPs rejecting proposed Trades based on your blend of Currencies and Volumes matched by EBS. What is the proportion of Rejected trades for other LCs? This is based on similar trade attempts to the ones sent by you. Are you being Rejected more or less than most LCs?
Net Alpha	Net Alpha (USD per mil)	Average benefit per million of matched volume gained from having better prices from LP at time of match and offset by cost of rejects. This is how much you benefit from having specific LPs in the mix (taking into account both the price and cost of rejects) proportionate to all of your orders which got matched on EBS System. The three lowest Net Alpha values are

Column	Metric	Description
		highlighted.
EBS Net Alpha	EBS Net Alpha (USD per mil)	Average benefit of better pricing for completed trades at time of match offset by Cost of Rejects on EBS system based on your blend of Currencies and Volumes. This is how much having specific LPs in the mix (taking into account both pricing and cost of rejects) benefits most LCs proportionate to their matched volume and based on similar trades to you. Do you benefit from your mix more or less than others given your overall trading activity on the system?
LP Hold Times	LP Hold times (ms)	Average time in milliseconds it takes LPs to respond to Trade Proposals from you.

3.1.2 Advanced Columns

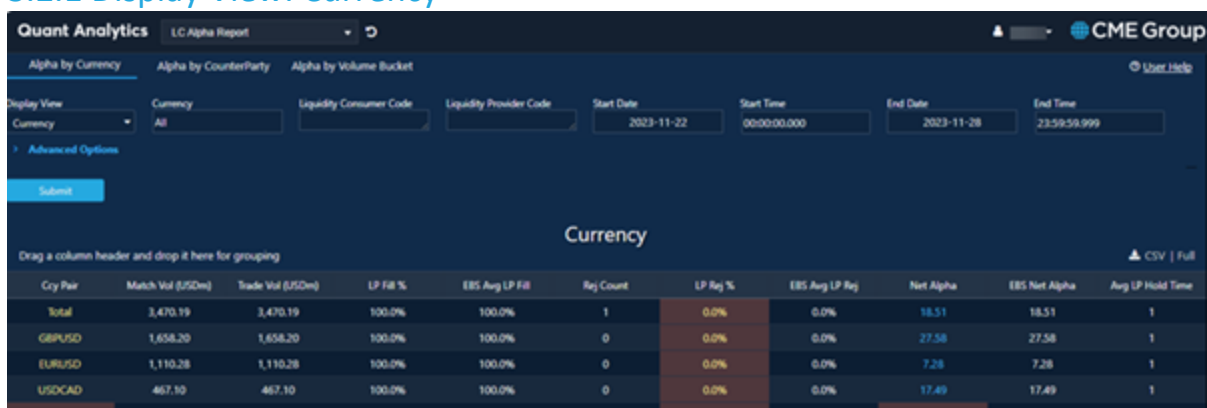
These are the data columns that display when the Advanced Columns options is selected.

Column	Metric	Description
P Ord Count	Parent Order Count	This is the count of submitted parent orders, involved in at least one match with an LP.
Tot Gross Alpha (USD)	Total Gross Alpha	Total benefit of better price from LP at time of match. This is based on difference between dealt price and your EBS Direct VWAP price at the time of the match if specific LP was excluded from the price stack. If EBS Market VWAP price at the same time is better, then this value is used instead. This is how much you gain by having specific LP providing you with better price of your completed trades.
Gross Alpha	Gross Alpha (USD per mil)	Benefit of better pricing from completed trades per million of matched volume. This is how much you gain per million traded by having specific LP providing you with better price.
EBS Gross Alpha	EBS Gross Alpha (USD per mil)	Average benefit of better pricing for completed trades on EBS system based on your blend of Currencies and volumes. This is how much better pricing from LPs benefits most LCs proportionate to their matched volume and based on similar trades to you. Do you benefit more or less than others given your overall trading activity on the system?
Total Zeta (USD)	Total Zeta (USD)	Total Cost of Rejects by LPs. This is based on average trade price of any of your deals in same direction and currency pair within Zeta timeout seconds after rejected trade attempt and up to the amount of rejected trade. If no deals took place or total amount of deals is less than reject amount, then movement of EBS True Rate at Zeta timeout seconds after the reject is used to allocate the cost. This is total your cost of all LP Rejects.
Zeta	Match Vol Zeta (USD per mil)	Cost of Rejects per million of Matched Volume. This is how much LP Rejects cost you proportionate to all of your orders which got matched on EBS System.
EBS Zeta	EBS Match Vol Zeta (USD per mil)	Average cost of Rejects per million of Matched Volume on EBS system based on your blend of Currencies and Volumes. This is how much LP Rejects costs to most LCs proportionate to their matched volume and based on similar trades to you. Do Rejects cost you more or less than they do for others given your overall trading activity on the system?
Tot Net Alpha (USD)	Total Net Alpha (USD)	Total benefit gained from having better prices from LP at time of match and offset by Cost of Reject. This is how much you benefit from having LP price in the mix taking into account both the price quality and cost of rejects.
EBS Avg Hold Times	EBS Average Hold Times	Average time in milliseconds (across the whole system) it takes LPs to

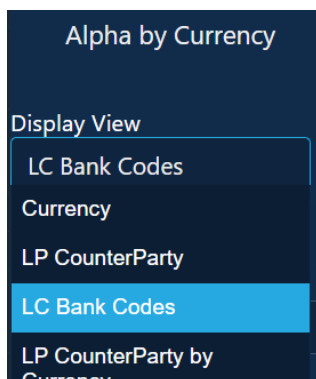
Column	Metric	Description
		respond to Trade Proposals for similar trades.
Avg LP Hold Time	Average LP Hold Time	LP Hold Times: average time in milliseconds it takes LPs to respond to proposals from you
Med LP HT	Median LP Hold Time	LP Hold Times: median time in milliseconds it takes LPs to respond to proposals from you
90% LP HT	90% percentile LP Hold Time	LP Hold Times: 90th percentile time in milliseconds it takes LPs to respond to proposals from you
99% LP HT	99% percentile LP Hold Time	LP Hold Times: 99th percentile time in milliseconds it takes LPs to respond to proposals from you
Acc LP HT	Average LP hold time for filled trades	LP Hold Times: average time in milliseconds it takes LPs to accept proposals from you
Rej LP HT	Average LP hold time for rejected trades	LP Hold Times: average time in milliseconds it takes LPs to reject proposals from you

3.2 Display Views

3.2.1 Display View: Currency



Default view is by **Currency**. This view displays information about the individual client and how they compare to the market, in general, in different Currency Pairs they traded. Default sort order is descending by Matched Volume. Users can drill down Floor-by-Floor view by Institution codes that they have access to.



Clients can drill down by one or more LPs by inputting their code into the LP code box selected (client can be empty or populated).

3.2.2 Display View: LP CounterParty

Shows metrics per Liquidity Provider Institution Code.

LP Inst Code	Institution	Match Vol (\$USD)	Trade Vol (\$USD)	Rej Count	LP Rej %	EBS Avg LP Rej	Other LP Avg Rej	Net Alpha	EBS Net Alpha	Avg LP Hold Time
Total	Total	3,470.19	3,470.19	1	0.0%	0.0%		18.51	18.51	1
JPNC		1,246.83	1,246.83	0	0.0%	0.0%	0.0%	30.50	20.42	1
		936.01	936.01	0	0.0%	0.0%	0.0%	24.09	20.44	1
		723.31	723.31	0	0.0%	0.0%	0.0%	2.61	20.26	1
		363.69	363.69	0	0.0%	0.0%	0.0%	2.44	9.60	2
		192.73	192.73	0	0.0%	0.0%	0.0%	0.53	4.74	1
		7.54	7.54	1	0.0%	0.0%	0.0%	-0.00	11.39	0

This view displays information per counterparty and how each counterparty compares to the market in general. Default sort order is descending by Matched Volume. This view only allows you to see data by “Matched” volume.

3.2.3 Display View: LC Bank Codes

Users can see breakdown of their own floors when using **LC Bank Codes** view.

LC Floor Code	LC Inst Code	Institution	Match Vol (\$USD)	Trade Vol (\$USD)	LP Fill %	EBS Avg LP Fill	Rej Count	LP Rej %	EBS Avg LP Rej	Net Alpha	EBS Net Alpha	Avg LP Hold Time
Total	Total	Total	3,470.19	3,470.19	100.0%	100.0%	1	0.0%	0.0%	18.51	18.51	1
			2,192.18	2,192.18	100.0%	100.0%	0	0.0%	0.0%	11.64	17.44	1
			1,245.74	1,245.74	100.0%	100.0%	0	0.0%	0.0%	30.30	20.43	1
			23.55	23.55	100.0%	100.0%	0	0.0%	0.0%	15.74	17.67	1
			7.54	7.54	100.0%	100.0%	1	0.0%	0.0%	-0.00	11.39	0
			1.18	1.18	100.0%	100.0%	0	0.0%	0.0%	25.42	10.48	12

3.2.4 Display View: LP CounterParty by Currency

This view presents metrics per counterparty per currency. Default sort order is by descending Matched Volume.

This view only allows you to see data by “Matched” volume. The columns are the same as in the CounterParty View with the addition of the Currency column.

Column	Description
LP Inst Code	An Institution code is a single EBS code applied to multiple floors. Colored user icons represent user activity on Quant Analytics dashboards for corresponding counterparty; Green: Users have logged in within past 30 days; Orange: User has logged in within the past 90 days; Red: User has not logged in (but has an account); Grey: Non disclosed LP – we do not disclose NQA activity for non-disclosed codes; No Icon: LP does not have NQA account
Institution	Institution Code trading name. This could be masked for institution trading via EBS Select.
Other LP Avg Rej	Other LP’s Average Reject %: this indicates what other LPs average Reject ratio is for similar set of trades.

Quant Analytics LC Alpha Report 🔍 🔔 🌐 CME Group 👤 User Help

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: LP CounterParty by ... Currency: All Liquidity Consumer Code: Liquidity Provider Code: Start Date: 2023-11-22 Start Time: 00:00:00.000 End Date: 2023-11-28 End Time: 23:59:59.999

Advanced Options

Submit

LP CounterParty by Currency

Drag a column header and drop it here for grouping

Cry Pair	LP Inst Code	Institution	Match Vol (USDm)	Trade Vol (USDm)	Reg Count	LP Reg %	EBIS Avg LP Reg	Other LP Avg Reg	Net Alpha	EBIS Net Alpha	Avg LP Hold Time
Total	Total	Total	3,470.19	3,470.19	1	0.0%	0.0%		18.51	18.51	1
GBP/USD			666.97	666.97	0	0.0%	0.0%	0.0%	42.16	28.18	1
GBP/USD			535.67	535.67	0	0.0%	0.0%	0.0%	32.03	28.38	1
GBP/USD			384.82	384.82	0	0.0%	0.0%	0.0%	0.96	28.17	1
EUR/USD			281.10	281.10	0	0.0%	0.0%	0.0%	1.43	7.69	1
EUR/USD			247.66	247.66	0	0.0%	0.0%	0.0%	8.33	6.17	1

CSV | Full

3.2.5 Display View: Day

Shows data aggregated by the Day.

Quant Analytics LC Alpha Report 🔍 🔔 🌐 CME Group 👤 User Help

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: Day Currency: All Liquidity Consumer Code:

Advanced Options

Trader: All Order Type: All Product Group: EBSD & EBSS

Volume Type: Matched Vol Bucket Metrics: Advanced Columns:

Submit

Drag a column header and drop it here for grouping

Date	Weekday	Match Vol (USDm)	Trade Vol (USDm)
2023.05.23	Tuesday	17,953.90	17,265.41
2023.05.24	Wednesday	20,304.71	19,410.20
2023.05.25	Thursday	18,642.96	17,911.50
2023.05.26	Friday	17,194.69	16,391.28

3.2.6 Display View: Week

Shows data aggregated by week.

Quant Analytics LC Alpha Report

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: Week

Currency: All Liquidity Consumer Code:

Advanced Options

Trader: All Order Type: All Product Group: EBSD & EBSS

Volume Type: Matched Vol Bucket Metrics: Advanced Columns:

Submit

Drag a column header and drop it here for grouping

Sunday Date	WeekNum	Match Vol (USDm)	Trade Vol (USDm)
Total	Total	99,938.33	95,850.82
2023.05.21	21	90,206.26	86,361.63
2023.05.28	22	9,732.08	9,489.19

3.2.7 Display View: Hourly

Shows data aggregated by hour of the day.

Quant Analytics LC Alpha Report

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: Hourly

Currency: All Liquidity Consumer Code:

Advanced Options

Trader: All Order Type: All Product Group: EBSD & EBSS

Volume Type: Matched Vol Bucket Metrics: Advanced Columns:

Submit

Drag a column header and drop it here for grouping

Hour	Match Vol (USDm)	Trade Vol (USDm)
Total	83,828.34	80,467.59
00	3,662.78	3,606.49
01	5,181.68	5,022.53
02	4,720.28	4,616.15
03	2,806.72	2,776.06
04	2,625.27	2,580.01

3.2.8 Display View: Volume Bucket

This View groups metrics by Size (USD) of the LC Parent order which was Submitted to EBS (including any un-matched volume).

This view does allow you to switch between “Matched” or “Submitted” Volume base.

The default sort order is by Volume Bucket. Other columns are the same as in the Currency view with exception of Vol Bucket column.

Quant Analytics LC Alpha Report

Alpha by Currency Alpha by Counter

Display View
Volume Bucket

Advanced Options

Trader
All

Order Type
All

Volume Type
Matched

Vol Bucket Metrics

Submit

Drag a column header and drop it here for gr

Subm Vol Bucket	Match Vol (USDm)	Tr
Total	83,828.34	
1: <=1m	33,933.46	
2: 1-3m	25,709.85	
3: 3-5m	13,407.58	
4: 5-10m	8,371.78	

3.2.9 Display View: Trader

Produces report like LC Bank code view but further split by Trader ID.

Quant Analytics LC Alp

Alpha by Currency Alpha by

Display View
Trader

Advanced Options

Trader
All

Order Ty

Advanced Columns

Submit

Drag a column header and drop it he

LC InstCode	Institution
Total	Total
LC Inst 1	LC Corp 1
LC Inst 2	LC Corp 2
LC Inst 3	LC Corp 3

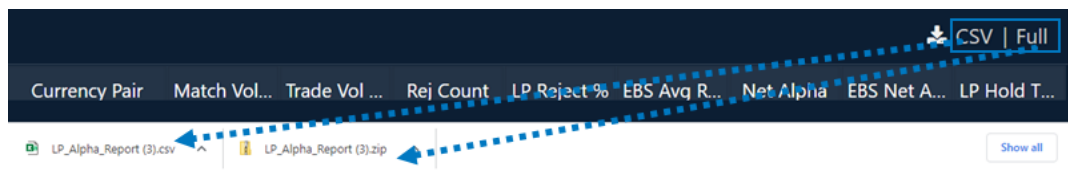
3.2.10 Display View: Individual Trade View

Produces a trade by trade view, which natively shows 6000 rows, but can be fully exported to CSV (up to 1 million rows); shows all details for deeper custom analysis.

4 Other Features

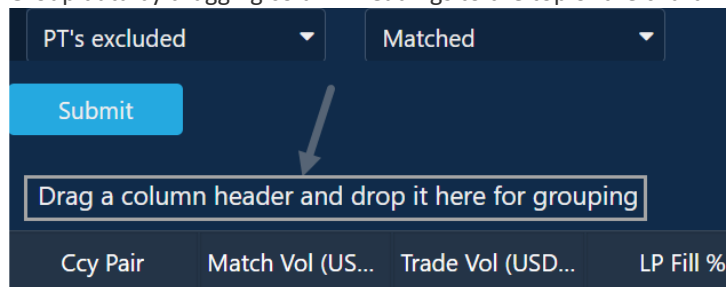
4.1 Export Data

Export analytic results by going to the right corner above data table and clicking either CSV or Full (for a complete data set).



4.2 Drag a column header and drop it here for grouping

Group data by dragging column headings to the top of the chart.



Submit		
EBS Net Alpha ✕		
data is grouped by EBS Net Alpha heading		
Ccy Pair	Match Vol (USDm)	Trade Vol (USDm)
0.00 (7 items)		
EURMXN	4.13	4.13
ZARJPY	2.49	2.49
EURHKD	1.20	1.20
XAUEUR	1.01	1.01
USDRUB	1.00	1.00
EURZAR	0.87	0.87
AUDCHF	0.67	0.67
1.69 (1 items)		

5 Calculation Methodology

Only ESP flow is included while RFQ is excluded.

Orders submitted to the system are analyzed first by being matched to each LP and identifying the subsequent Filled or Reject outcomes for each matched Order.

We start by calculating **Gross Alpha** value which serves as a measure of the benefit received from access to better prices provided by LPs. This is calculated as following:

- For each match attempt which resulted in a Deal we calculate the difference between actual Dealt price and the theoretical VWAP price with all other LPs available to that LC (assuming the matched LP is removed from the price stack). This serves as a measure of how much was gained by having a particular LP as part of the price stack. This is the value

difference on the VWAP with the LP versus without them (single ticket trades are treated as separate VWAPs)

- b. We also measure the difference between the actual Dealt price and the theoretical VWAP price on the EBS Market Central Limit Order Book. The lower of this value and the value calculated in (a) is used to indicate Gross Alpha value for any given Deal. If the EBS Market VWAP is better than the actual Dealt price then a Gross Alpha of 0 is assigned to the Deal. This is done to remove outliers and make sure benefit is only allocated to LPs which provide competitive prices.

Next, we calculate the Zeta metric which is the **cost of rejects**. This is calculated as one of the following:

- a. If the Parent Order was Fully Filled following the Reject event, then we take the average price of the Deals related to same Parent Order which took place after the Reject and calculate the difference from the price of the Rejected order. This methodology would only apply if the Parent Order has re-match logic enabled or is a Resting Order.
- b. If the Parent Order was not Fully Filled, and there were no Trades from the same Client in the subsequent one second time interval in the same Instrument and in the same Direction, then we look at the EBS True mid-rate at one second from the time of Reject and calculate the difference from the EBS True mid-rate at the time of Rejected Order. This gives an indication of the Market movement which occurred within one second following the unsuccessful trade attempt.
- c. If the Parent Order was not Fully Filled, but there were Trades from the same Client in the subsequent one second time interval in the same Instrument and in the same Direction which matched or exceeded the size of the average price of the Rejected order, then we take average price of these Deals and calculate the difference from the price of the Rejected.
- d. If the Parent Order was not Fully Filled, and there were Trades from the same Client in the subsequent one second time interval in the same Instrument and in the same Direction but their total was less than the size of the Rejected order, then we take a blend of deltas calculated using methods b) and c) above, weighted by volume.

Finally, we calculate the **“Net Alpha values”** by subtracting the Zeta value from the Gross Alpha thus providing a measure of the overall benefit of LP prices offset by Cost of Rejects.

LP Alpha Report

1 Introduction

The LP Alpha Report dashboard is aimed at LP (Liquidity Provider) clients’ comparative analysis of instantaneous added value provided to their Liquidity Consumers along with Reject Rates, Cost of Rejects, and LP Hold times on orders, all compared to EBS Averages. This dashboard is designed to assist the LPs to focus on competitiveness of their prices to the LCs and any costs LCs incur because of Rejects. It also allows the LPs to compare an LP’s hold times with other Providers on EBS. The dashboard also allows an order by order breakdown of the full Transaction Cost Analysis (TCA). The data is exportable to Excel and shows next best prices available for each successful match as well as comparison to EBSM best liquidity at that point of time.

Users can quickly identify where they may be adding least value to clients and look to remedy negative situations quickly or modify pricing tiers and behaviors. High Alpha values and low volumes may suggest pricing is too wide and more opportunities could be made by tightening (depending on pricing competitiveness, if LP Market share is high it could be overstating Alpha, if LP Market Impact is also high, pricing should be actually widened), too low gross alpha could suggest very non-differentiated pricing or over skewing.



Note: All report screenshots shown here are using hidden floor and institution codes, for illustration purposes only and to show functionality (actual Floor Codes and Institution codes are four character alphanumeric codes).

2 Configuration

Configuration of the views consists of the following:

- a. Selection of the groupings used to display data
- b. Setting filters to select trade data
- c. (Optionally) selecting additional data

2.1 Display View Selection

The Display Views determine how the trade data is grouped. Each of these groupings is detailed in [Data Display](#). Options include:

- [Currency](#)
- [LC CounterParty](#)
- [LP Price Streams](#)
- [LC CounterParty by Currency](#)
- [Day](#)
- [Week](#)
- [Hourly](#)
- [Volume Bucket](#)
- [Trader](#)
- [Individual Trade View](#)

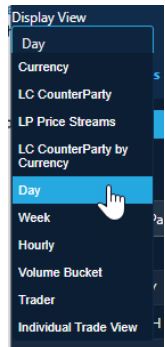
The Display view can either be selected from the Display View dropdown or by the Quick Display View Bar.

▶ To select views from the display view dropdown

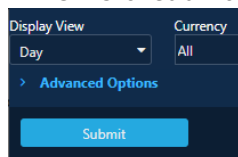
1. Click the arrow in the Currency box to see a list of view options. The default view is [Currency](#).



2. Scroll the list to choose a display option.



3. Click **Submit** to confirm.



The data will display by the selected grouping.

Display View	Currency	Liquidity Provider Code	Liquidity Consumer Code
Day	All		
> Advanced Options			
Submit			
Date	Match Vol (USDm)	Trade Vol (USDm)	
Total	87,303.99	83,341.38	
2023.05.22	15,662.35	14,968.73	
2023.05.23	17,953.90	17,265.41	
2023.05.17	16,990.08	16,299.18	

To use the Quick Display Views

Three of most commonly used views can be accessed using the short-cut links. Click a Display View Quick link to quickly navigate to that view.

- View by Currency ([Display View “Currency”](#))
- View by CounterParty ([Display View “LC CounterParty”](#))
- View by Volume Bucket ([Display View “Volume Bucket”](#))

The active view is indicated by a blue line.

Quant Analytics		LP Alpha Report		
Alpha by Currency		Alpha by CounterParty		Alpha by Volume Bucket
Display View	Currency	Liquidity Provider Code	Liquidity	
Currency	All			
Currency				
LC CounterParty				
LP Price Streams				
LC CounterParty by Currency				
Day				
Week				
Hourly				
Volume Bucket				
Trader				
Individual Trade View				
Match Vol (USDm)	Trade Vol (USDm)	Rej Count		
1,450.27	1,415.09	29		
808.10	801.10	7		
355.72	341.22	17		

2.2 Data Filters

Each main display view has options for filtering the data presented. Refer to the sections that follow for details.

2.2.1 Currency

Allows user to specify Currency for analysis, not case sensitive.

NOTE: Default value is **TOP10** – Top 10 EBS currency pairs (based on volume).

Type the following **Shortcodes**+ **Submit** for groups of currencies as follows:

- **ALL** – will display the full list of currency pairs available on EBS.
- Individual Currency Pairs (Syms) – Can enter single pairs (e.g. **EURUSD**) or multiple pairs, delimited by commas (e.g. **EURUSD, USDJPY, USDCNH**).
- Individual Currencies (Syms) - Can enter single currencies (e.g **AUD**) and see all currencies with AUD in them, (e.g. **AUDUSD, AUDJPY, AUDCAD, etc.**).
- **TOP5** – Top 5 EBS currency pairs
- **NDF** – will display NDF currency pairs
- **Skandi** or **Scandi** – will display all scandi currencies, **EM, LATAM, AEM** for emerging markets
- **Com** – Will display all commonwealth currencies

2.2.2 Liquidity Provider Code

Allows inclusion / exclusion (using “!”) of your individual LP Floor ID, or Institution code, or multiple IDs:

- Default is “”, meaning all
- Enter floor code or institution code, can be blank (does not need “ ”)
- Can use Wildcards, e.g. T*** to select all floors starting with T
- Can use Exclusion, e.g. !T*** to exclude all floors starting with T
- Can choose multiple Floors separated by a comma
- Floor codes are not case sensitive
- Only LP Codes are available

2.2.3 Liquidity Consumer Code

Allows entry / or exclusion (using “!”) of individual Floor ID or institution, or multiple IDs:

- Default is “”, meaning all
- Allowed values follow same logic as for LP Code field

2.2.4 Start Date/End Date

Filter date ranges for the data displayed using the drop-down calendar.

2.2.5 Start Time/End Time

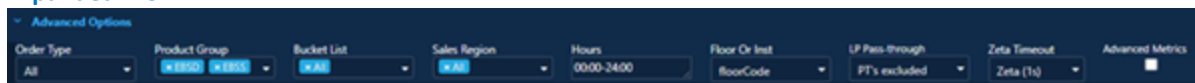
Specify time ranges for the data displayed.

2.2.6 > Advanced Options

Click this option to see more advanced view options and features.



Expanded View



2.2.7 Order Type

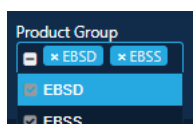
Allows selection of Single Ticket / Sweep or both from drop down.

2.2.8 Product Group

Allows user to select trading style:

- EBSD (EBS Direct – disclosed relationship trading)
- EBSS (EBS Select – non-disclosed relationship trading)

Click in Product Group field to display and select options. By default, both EBSD, EBSS are selected.



2.2.9 Bucket List

The volume buckets for the size of individual orders included in the report:

- All
- 1: <=1m
- 2: 1-3m
- 3: 3-5m
- 4: 5-10m
- 5: 10-15m
- 6: 15-20m
- 7: 20-30m
- 8: 30-50m
- 9: 50m

2.2.10 Sales Region

- All
- Americas
- Asia & Oceania
- Japan
- EMEA

2.2.11 Hours

Reports trades occurring within these hours only. Start Date + Start Time and End Date + End Time determine the start and end of the overall reporting period. Hours determines the hours for each day within the reporting period for which trades will be reported.

2.2.12 Floor or Inst

Defines the granularity of reporting against the LP:

- instCode: reporting is aggregated to the LP's instcode (but still broken down by LC Floor codes)
- floorCode: reporting is broken down by LP's floorCodes (and LC floor codes)
- priceSegment: reporting is broken down by LP's price segment (and LC floor codes)

Note: this controls the display of data not the selection of data and only applies to the following Display Views:

- LC Counterparty
- LP Price Streams
- LC Counterparty by Currency
- Trader

2.2.13 LP-Pass Through

Whether or not pass through orders are included in the reports. By default they are excluded since they are no subject to competitive matching.

2.2.14 Zeta Timeout

The delay used to calculate zeta values (see Total Zeta (USD) column).

2.3 Advanced Metrics

Allows user to view more columns of data including additional LP hold time data. Check to activate, then press **Submit**. See [Advanced Columns](#) for more information.

Advanced Metrics

Quant Analytics LP Alpha Report

Alpha by Currency
Alpha by CounterParty
Alpha by Volume Bucket
User Help

Display View
 Currency

Liquidity Provider Code
 All

Liquidity Consumer Code
 All

Start Date
 2023-11-22

Start Time
 00:00:00.000

End Date
 2023-11-28

End Time
 23:59:59.999

Order Type
 All

Product Group
 N2000 N2000

Bucket List
 N200

Sales Region
 N200

Hours
 00:00-24:00

Floor Or Inst
 FloorCode

LP Pass-through
 PT's excluded

Zeta Timeout
 Zeta (1s)

Advanced Metrics

Submit

Currency

Full

Currency Pair	Match Vol...	Trade Vol...	P Ord Co...	Reg Count	LP Reject %	EBS Avg R...	Tot Gross ...	Gross Alp...	EBS Gross...	Total Zeta...	Zeta	EBS Zeta	Tot Net AL...	Net Alpha	EBS Net A...	Avg LP H...	Med LP HT	90% LP
Total	3,470.19	3,470.19	725	1	0.0%	0.0%	63,384	18.51	18.51	-0	-0.00	-0.00	63,384	18.51	18.51	1	1	
GBPUSD	1,658.20	1,658.20	266	0	0.0%	0.0%	45,726	27.58	27.58	0	0.00	0.00	45,726	27.58	27.58	1	1	
EURUSD	1,110.28	1,110.28	208	0	0.0%	0.0%	7,853	7.28	7.28	0	0.00	0.00	7,853	7.28	7.28	1	1	
USDCAD	467.10	467.10	128	0	0.0%	0.0%	8,170	17.49	17.49	0	0.00	0.00	8,170	17.49	17.49	1	1	
AUDNZD	70.61	70.61	19	0	0.0%	0.0%	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	1	1	
NZDUSD	49.39	49.39	19	0	0.0%	0.0%	520	10.53	10.53	0	0.00	0.00	520	10.53	10.53	3	2	
EURGBP	36.89	36.89	28	0	0.0%	0.0%	114	5.20	5.20	0	0.00	0.00	114	5.20	5.20	2	2	

3 Data Display

3.1 Data Columns

3.1.1 Data Columns Common to Alpha Display Views

The table below displays columns of data are shared by all the display views except Individual Trade View. For additional metrics, refer to the [Advanced Columns](#) section.

Column	Metric	Description
Match Vol (USD m)	Matched Volume	The volume has been matched by EBS and sent to you as proposed trades. Note that volumes are converted into USD equivalent for reporting.
Trade Vol (USD m)	Traded Volume	The volume you have traded with your LCs in total and by selected display view.
Rej Count	Count of Rejects	The number of times Trade Proposals have been rejected by you. This is how many times in the selected time you rejected proposed trades from LCs.
LP Rej %	LP Reject Percentage	This is the ratio of your Rejects to proposed trade volume, "What is the proportion of proposed volume rejected by you?" The three highest reject ratios are highlighted.
EBS Avg LP Rej	EBS Average LP Reject	The EBS Average Reject ratio based on the blend of Currencies and Volumes proposed to you. "What is the proportion of Rejected trades for other LPs. This is based on similar trade attempts to the ones received by you. Are you Rejecting more or less than most LPs?"
Net Alpha	Net Alpha (USD per mil)	Average benefit per million of matched volume gained from matching with you and offset by costs of rejects to the LC. This is how much the LC benefits from having your price in the mix (taking into account both the price and cost of rejects) proportionate to all of the orders matched to you. The three lowest Net Alpha values are highlighted.
EBS Net Alpha	EBS Net Alpha (USD per mil)	Systemwide average benefit of better pricing for completed trades at time of match offset by Cost of Rejects and based on the blend of Currencies and Volumes matched to you. Do LCs benefit from having your price in the mix more or less than they do for others given your overall trading activity of the system.
LP Hold Times	LP Hold times (ms)	Average time in milliseconds it takes you to respond to Trade Proposals from LCs.

3.1.2 Advanced Columns

These are the data columns that display when the Advanced Columns options is selected.

Column	Metric	Description
P Ord Count	Parent Order Count	The count of LCs of parent orders, involved in matches with you.
Tot Gross Alpha (USD)	Total Gross Alpha	Total benefit of your price to the LC at time of match. This is based on difference between the dealt price and the EBS Direct VWAP price for that LC at the time of the match if you were excluded from the price stack. If the EBS Market VWAP is better than the EBS Direct VWAP price then the EBS Market VWAP price is used instead. This is how much LC benefits by having you providing better price for their completed trades.
Gross Alpha	Gross Alpha (USD per mil)	Benefit of your price to the LC at the time of match per million of matched volume. This is how much LC benefits by having you in the price mix pro-

Column	Metric	Description
		portionate to all orders which got matched by you.
EBS Gross Alpha	EBS Gross Alpha (USD per mil)	Average benefit of better pricing at point of match received by all LCs on EBS system based on the blend of Currencies and Volumes traded by you. This is how much pricing from LPs which actually get the trade benefits most LCs proportionate to their matched volume and based on similar trades to you. "Do you provide more price benefit or less than other LPs given your overall trading activity on the system?"
Total Zeta (USD)	Total Zeta (USD)	Total Cost of Rejects to LCs. This is based on the average trade price of any deals by the same LC in the same direction and currency pair within Zeta timeout seconds after you rejected a trade attempt with that LC and up to the amount of the rejected trade. If no deals took place or the total amount of deals is less than the reject amount, then the movement of the EBS True Rate at Zeta timeout seconds after the reject is used to allocate the cost. This is total your cost of your Rejects to your LCs.
Zeta	Match Vol Zeta (USD per mil)	Cost of Rejects per million of Matched Volume. This is how much Rejects are costing your LCs proportionate to all of LC orders which get matched on the System.
EBS Zeta	EBS Match Vol Zeta (USD per mil)	Average cost of Rejects per million of Matched Volume on EBS system based on blend of Currencies and Volumes proposed to you. This is how much LP Rejects costs to most LCs proportionate to their matched volume and based on similar trades to you. Do your Rejects result in higher average cost to LCs proportionate to their activity on the system?
Tot Net Alpha (USD)	Total Net Alpha (USD)	Total benefit at time of match gained from having your prices and offset by your Cost of Rejects to the LC. This is how much your LC benefits from having your price in the mix taking into account both the price quality and cost of rejects.
EBS Avg LP Hold Times	EBS Average Hold Times	average time in milliseconds (across the whole system) it takes LPs to respond to Trade Proposals for similar trades
Avg LP Hold Time	Average LP Hold Time	LP Hold Times: average time in milliseconds it takes LPs to respond to proposals from you
Med LP HT	Median LP Hold Time	LP Hold Times: median time in milliseconds it takes LPs to respond to proposals from you
90% LP HT	90% percentile LP Hold Time	LP Hold Times: 90th percentile time in milliseconds it takes LPs to respond to proposals from you
99% LP HT	99% percentile LP Hold Time	LP Hold Times: 99th percentile time in milliseconds it takes LPs to respond to proposals from you
Acc LP HT	Average LP hold time for filled trades	LP Hold Times: average time in milliseconds it takes LPs to accept proposals from you
Rej LP HT	Average LP hold time for rejected trades	LP Hold Times: average time in milliseconds it takes LPs to reject proposals from you

3.2 Display Views

3.2.1 Display View: Currency

Quant Analytics LP Alpha Report

Alpha by Currency | Alpha by CounterParty | Alpha by Volume Bucket

Display View: Currency

Advanced Options

Submit

Currency

CSV | Full

Currency Pair	Match Vol (USDm)	Trade Vol (USDm)	Reg Count	LP Reject %	EBS Avg Reg %	Net Alpha	EBS Net Alpha	Avg LP Hold Time
Total	3,470.19	3,470.19	1	0.0%	0.0%	18.51	18.51	1
GBPUSD	1,658.20	1,658.20	0	0.0%	0.0%	27.58	27.58	1
EURUSD	1,110.28	1,110.28	0	0.0%	0.0%	7.28	7.28	1
USDCAD	467.30	467.30	0	0.0%	0.0%	17.49	17.49	1
AUDNZD	70.61	70.61	0	0.0%	0.0%	0.00	0.00	1
NZDUSD	49.39	49.39	0	0.0%	0.0%	10.53	10.53	3

Default view is by Currency. This view displays information about the individual client and how they compare to the market, in general, in different Currency Pairs they traded. Default sort order is descending by Matched Volume.

- Drill down Floor by Floor or view by Institution codes that they have access to.
- To view the breakdown of your own floors use the LP Price Streams view.

Clients can drill down by one or more LCs by inputting their code into the LC code box selected (client can be empty or populated).

3.2.2 Display View: LC CounterParty

This view displays information per counterparty and how each counterparty compares to the market in general. Default sort order is descending by Matched Volume.

Quant Analytics LP Alpha Report

Alpha by Currency | Alpha by CounterParty | Alpha by Volume Bucket

Display View: LC CounterParty

Advanced Options

Submit

LC CounterParty

CSV | Full

LP Floor Code	LP Region	LC Floor Code	LC Inst Code	Institution	Match Vol (USDm)	Trade Vol (USDm)	Reg Count	LP Reject %	EBS Avg LP Reg	Client Avg Reg	Net Alpha	EBS Net Alpha	Avg LP Hold ...
Total	Total	Total	Total	Total	3,470.19	3,470.19	1	0.0%	0.0%	0.0%	18.51	18.51	1
LN					1,245.74	1,245.74	0	0.0%	0.0%		30.50	20.43	1
LN					930.12	930.12	0	0.0%	0.0%		24.22	20.55	1
LN					721.22	721.22	0	0.0%	0.0%		2.53	20.28	1
LN					348.11	348.11	0	0.0%	0.0%		1.66	8.90	2
LN					192.73	192.73	0	0.0%	0.0%		0.53	4.74	1
LN					15.58	15.58	0	0.0%	0.0%	0.0%	18.66	24.07	1

3.2.3 Display View: LP Price Streams

This view shows metrics per LP Price stream. Default sort order is by descending trade volume. Clients can drill down Floor by Floor or view by Institution codes that they have access to.

The columns are the same as in the LC Counterparty view.

Quant Analytics LP Alpha Report CME Group

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: LP Price Streams Currency: All Liquidity Provider Code: Liquidity Consumer Code: Start Date: 2023-11-22 Start Time: 00:00:00.000 End Date: 2023-11-28 End Time: 23:59:59.999

Advanced Options

Submit

LP Price Streams CSV | Full

LP Floor Code	LP Region	LP Inst Code	Institution	Match Vol (USDm)	Trade Vol (USDm)	Reg Count	LP Reject %	EBIS Avg LP Reg	Net Alpha	EBIS Net Alpha	Avg LP Hold Time
Total	Total	Total	Total	3,470.19	3,470.19	1	0.0%	0.0%	18.51	18.51	1
	LN			1,246.83	1,246.83	0	0.0%	0.0%	30.50	20.42	1
	LN			936.01	936.01	0	0.0%	0.0%	24.09	20.44	1
	LN			723.31	723.31	0	0.0%	0.0%	2.61	20.26	1
	LN			363.69	363.69	0	0.0%	0.0%	2.44	9.60	2
	LN			192.73	192.73	0	0.0%	0.0%	0.53	4.74	1
	LN			7.54	7.54	1	0.0%	0.0%	-0.00	11.39	0
	LN			0.09	0.09	0	0.0%	0.0%	0.00	0.00	23

3.2.4 Display View: LC CounterParty by Currency

This view shows metrics per counterparty per currency. Default sort order is by descending Matched Volume. The columns are the same as in the CounterParty View with the addition of the Currency column.

Quant Analytics LP Alpha Report CME Group

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: LC CounterParty Currency: All Liquidity Provider Code: Liquidity Consumer Code: Start Date: 2023-11-22 Start Time: 00:00:00.000 End Date: 2023-11-28 End Time: 23:59:59.999

Advanced Options

Submit

LC CounterParty CSV | Full

LP Floor Code	LP Region	LC Floor Code	LC Inst Code	Institution	Match Vol (USDm)	Trade Vol (USDm)	Reg Count	LP Reject %	EBIS Avg LP Reg	Client Avg Reg	Net Alpha	EBIS Net Alpha	Avg LP Hold ...
Total	Total	Total	Total	Total	3,470.19	3,470.19	1	0.0%	0.0%	0.0%	18.51	18.51	1
	LN				1,245.74	1,245.74	0	0.0%	0.0%		30.50	20.43	1
	LN				930.12	930.12	0	0.0%	0.0%		24.22	20.55	1
	LN				721.22	721.22	0	0.0%	0.0%		2.53	20.28	1
	LN				348.11	348.11	0	0.0%	0.0%		1.66	8.90	2
	LN				192.73	192.73	0	0.0%	0.0%		0.53	4.74	1
	LN				15.58	15.58	0	0.0%	0.0%	0.0%	18.66	24.07	1

3.2.5 Display View: Day

Shows data aggregated by day.

Quant Analytics LP Alpha Report CME Group

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: Day Currency: All Liquidity Provider Code: Liquidity Consumer Code: Start Date: 2023-11-22 Start Time: 00:00:00.000 End Date: 2023-11-28 End Time: 23:59:59.999

Advanced Options

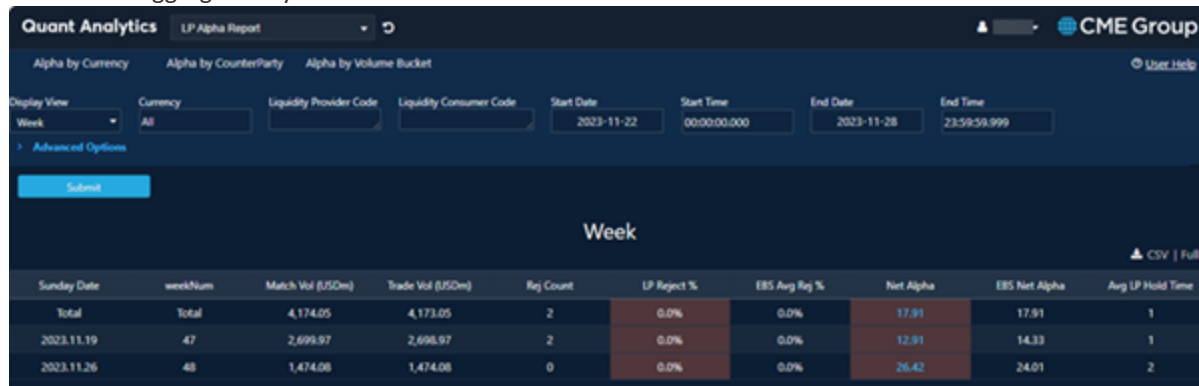
Submit

Day CSV | Full

Date	Match Vol (USDm)	Trade Vol (USDm)	Reg Count	LP Reject %	EBIS Avg Reg %	Net Alpha	EBIS Net Alpha	Avg LP Hold Time
Total	3,470.19	3,470.19	1	0.0%	0.0%	18.51	18.51	1
2023.11.27	1,232.28	1,232.28	0	0.0%	0.0%	29.97	27.74	1
2023.11.28	241.79	241.79	0	0.0%	0.0%	7.57	5.91	3
2023.11.22	933.28	933.28	1	0.0%	0.0%	11.97	12.27	1

3.2.6 Display View: Week

Shows data aggregated by week.



Quant Analytics LP Alpha Report

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: Week

Currency: All Liquidity Provider Code: Liquidity Consumer Code: Start Date: 2023-11-22 Start Time: 00:00:00.000 End Date: 2023-11-28 End Time: 23:59:59.999

Advanced Options

Submit

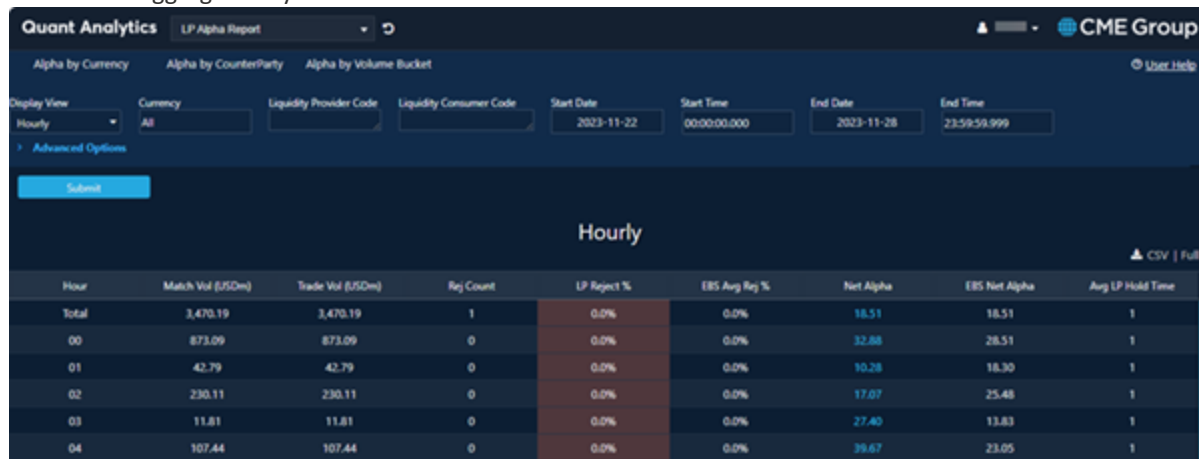
Week

CSV | Full

Sunday Date	weekNum	Match Vol (USDm)	Trade Vol (USDm)	Reg Count	LP Reject %	EBS Avg Reg %	Net Alpha	EBS Net Alpha	Avg LP Hold Time
Total	Total	4,174.05	4,173.05	2	0.0%	0.0%	17.91	17.91	1
2023.11.19	47	2,699.97	2,698.97	2	0.0%	0.0%	12.91	14.33	1
2023.11.26	48	1,474.08	1,474.08	0	0.0%	0.0%	26.42	24.01	2

3.2.7 Display View: Hourly

Shows data aggregated by hour.



Quant Analytics LP Alpha Report

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: Hourly

Currency: All Liquidity Provider Code: Liquidity Consumer Code: Start Date: 2023-11-22 Start Time: 00:00:00.000 End Date: 2023-11-28 End Time: 23:59:59.999

Advanced Options

Submit

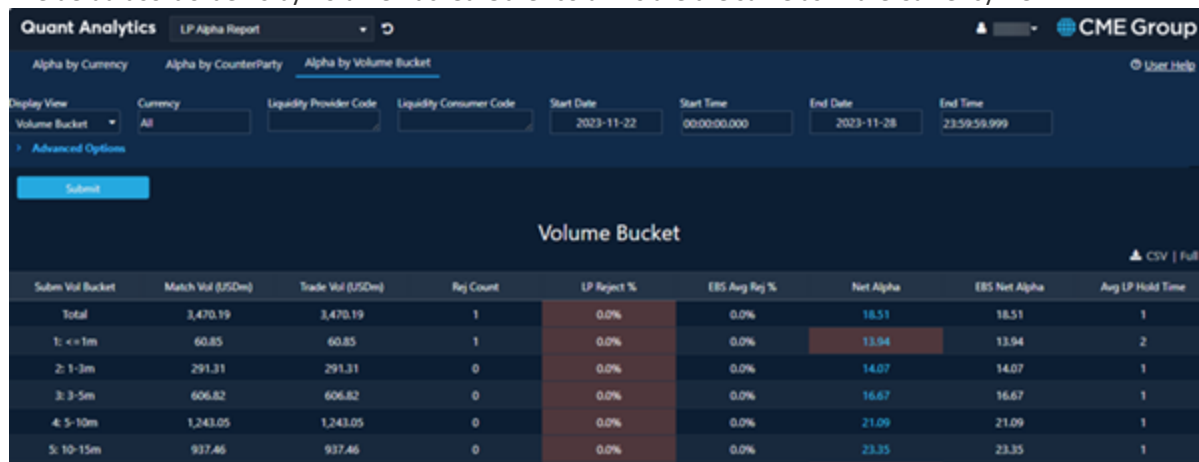
Hourly

CSV | Full

Hour	Match Vol (USDm)	Trade Vol (USDm)	Reg Count	LP Reject %	EBS Avg Reg %	Net Alpha	EBS Net Alpha	Avg LP Hold Time
Total	3,470.19	3,470.19	1	0.0%	0.0%	18.51	18.51	1
00	873.09	873.09	0	0.0%	0.0%	32.88	28.51	1
01	42.79	42.79	0	0.0%	0.0%	10.28	18.30	1
02	230.11	230.11	0	0.0%	0.0%	17.07	25.48	1
03	11.81	11.81	0	0.0%	0.0%	27.40	13.83	1
04	107.44	107.44	0	0.0%	0.0%	39.67	23.05	1

3.2.8 Display View: Volume Bucket

This view groups metrics by size (USD) of the LC Parent order which was submitted to EBS (including any un-matched volume). The default sort order is by Volume Bucket. Other columns are the same as in the Currency view.



Quant Analytics LP Alpha Report

Alpha by Currency Alpha by CounterParty Alpha by Volume Bucket

Display View: Volume Bucket

Currency: All Liquidity Provider Code: Liquidity Consumer Code: Start Date: 2023-11-22 Start Time: 00:00:00.000 End Date: 2023-11-28 End Time: 23:59:59.999

Advanced Options

Submit

Volume Bucket

CSV | Full

Subm Vol Bucket	Match Vol (USDm)	Trade Vol (USDm)	Reg Count	LP Reject %	EBS Avg Reg %	Net Alpha	EBS Net Alpha	Avg LP Hold Time
Total	3,470.19	3,470.19	1	0.0%	0.0%	18.51	18.51	1
1: <= 1m	60.85	60.85	1	0.0%	0.0%	13.94	13.94	2
2: 1-3m	291.31	291.31	0	0.0%	0.0%	14.07	14.07	1
3: 3-5m	606.82	606.82	0	0.0%	0.0%	16.67	16.67	1
4: 5-10m	1,243.05	1,243.05	0	0.0%	0.0%	21.09	21.09	1
5: 10-15m	937.46	937.46	0	0.0%	0.0%	23.35	23.35	1

3.2.9 Display View: Trader

Produces report like LC CounterParty view but further split by Trader ID

Institution	InstCode	LP Floor Code	LC Floor Code	Trader ID	Match Vol	Trade Vol	Reg Count	LP Reject %	EBS Avg Reg %	Net Alpha	EBS Net Alpha	Avg LP Hold
Total	Total	Total	Total	Total	3,470.19	3,470.19	1	0.0%	0.0%	18.51	18.51	1
					1,245.74	1,245.74	0	0.0%	0.0%	30.50	20.43	1
					930.12	930.12	0	0.0%	0.0%	24.22	20.55	1
					721.22	721.22	0	0.0%	0.0%	2.53	20.28	1
					348.11	348.11	0	0.0%	0.0%	1.66	8.90	2
					192.73	192.73	0	0.0%	0.0%	0.53	4.74	1
					13.40	13.40	0	0.0%	0.0%	14.98	26.13	1

3.2.10 Display View: Individual Trade View

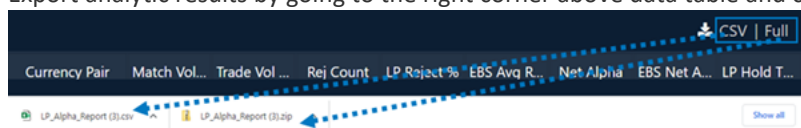
Produces a trade-by-trade view, which natively shows 6000 rows but can be fully exported to CSV (up to 1 million rows); shows all details for deeper custom analysis.

Date	Currency Pair	LP Floor Code	LP Region	LC Floor Code	Trader ID	LC Inst Code	LP Inst Code	Institution	Time	Subm Vol	Matched Vol	Exec ID	Match Vol	Match Vol
2023-11-22	AUDNZD		LN						06:09:17.85	1: <= 1m	1: <= 1m	F102-B000-	1	0.65
2023-11-22	AUDUSD		LN						06:43:37.64	1: <= 1m	1: <= 1m	F102-B000-	1	0.65
2023-11-22	AUDUSD		LN						12:40:15.25	2: 1-3m	2: 1-3m	F105-S000-	2	1.31
2023-11-22	EURGBP		LN						06:43:38.58	2: 1-3m	2: 1-3m	F102-B000-	1	1.09
2023-11-22	EURGBP		LN						06:43:39.95	2: 1-3m	2: 1-3m	F102-B000-	1	1.09
2023-11-22	EURUSD		LN						10:32:27.36	2: 1-3m	2: 1-3m	F100-A000-	1	1.09
2023-11-22	EURUSD		LN						10:33:41.91	2: 1-3m	2: 1-3m	F100-A000-	1	1.09

4 Other Features

4.1 Export Data

Export analytic results by going to the right corner above data table and clicking either CSV or Full (for a complete data set).



4.2 Drag a column header and drop it here for grouping

Group data by dragging column headings to the top of the chart.

PT's excluded ▼ Matched ▼

Submit

Drag a column header and drop it here for grouping

Ccy Pair Match Vol (US... Trade Vol (USD... LP Fill %

Submit

EBS Net Alpha ✕ data is grouped by EBS Net Alpha heading

Ccy Pair	Match Vol (USDm)	Trade Vol (USDm)
0.00 (7 items)		
EURMXN	4.13	4.13
ZARJPY	2.49	2.49
EURHKD	1.20	1.20
XAUEUR	1.01	1.01
USDRUB	1.00	1.00
EURZAR	0.87	0.87
AUDCHF	0.67	0.67
1.69 (1 items)		

5 Calculation Methodology

Only ESP flow is included while RFQ is excluded.

Orders submitted to the system are analysed first by being matched to each LP and identifying the subsequent Filled or Reject outcomes for each matched Order.

We start by calculating **Gross Alpha** value which serves as a measure of the benefit received from access to better prices provided by LPs. This is calculated as following:

- For each match attempt which resulted in a Deal we calculate the difference between actual Dealt price and the theoretical VWAP price with all other LPs available to that LC (assuming the matched LP is removed from the price stack). This serves as a measure of how much was gained by having a particular LP as part of the price stack. This is the value difference on the VWAP with the LP versus without them (single ticket trades are treated as separate VWAPs)
- We also measure the difference between the actual Dealt price and the theoretical VWAP price on the EBS Market Central Limit Order Book. The lower of this value and the value calculated in (a) is used to indicate Gross Alpha value for any given Deal. If the EBS Market VWAP is better than the actual Dealt price then a Gross Alpha of 0 is assigned to the Deal. This is done to remove outliers and make sure benefit is only allocated to LPs which provide competitive prices.

Next, we calculate the Zeta metric which is the **cost of rejects**. This is calculated as one of the following:

- a. If the Parent Order was Fully Filled following the Reject event, then we take the average price of the Deals related to same Parent Order which took place after the Reject and calculate the difference from the price of the Rejected order. This methodology would only apply if the Parent Order has re-match logic enabled or is a Resting Order.
- b. If the Parent Order was not Fully Filled, and there were no Trades from the same Client in the subsequent one second time interval in the same Instrument and in the same Direction, then we look at the EBS True mid-rate at one second from the time of Reject and calculate the difference from the EBS True mid-rate at the time of Rejected Order. This gives an indication of the Market movement which occurred within one second following the unsuccessful trade attempt.
- c. If the Parent Order was not Fully Filled, but there were Trades from the same Client in the subsequent one second time interval in the same Instrument and in the same Direction which matched or exceeded the size of the average price of the Rejected order, then we take average price of these Deals and calculate the difference from the price of the Rejected.
- d. If the Parent Order was not Fully Filled, and there were Trades from the same Client in the subsequent one second time interval in the same Instrument and in the same Direction but their total was less than the size of the Rejected order, then we take a blend of deltas calculated using methods b) and c) above, weighted by volume.

Finally, we calculate the **“Net Alpha values”** by subtracting the Zeta value from the Gross Alpha thus providing a measure of the overall benefit of LP prices offset by Cost of Rejects.

Trade Activity Dashboard

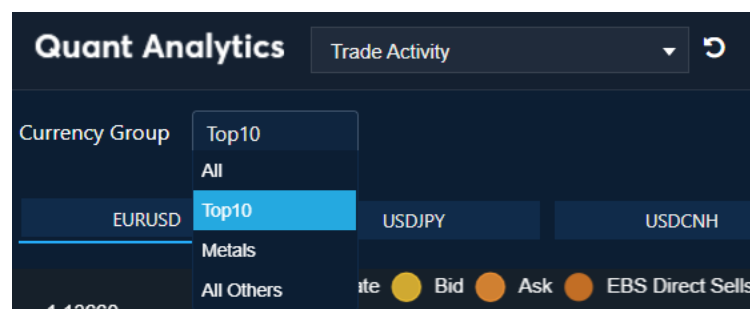
Trade Activity Dashboard, powered by Quant Analytics, offers unique insight to EBS referential data for global FX participants. This dashboard provides a view of both EBS Market and EBS Direct trade activity data for all major markets, plotted on graphs along with EBS Market bids/offers. The EBS True Rate, which is a blend of EBS Direct and EBS Market mid-rates (the blend will adjust for different currency pairs), is also plotted. The True rate is re-calculated at the end of each day in arrears to account for outlier price submissions and to correct for mismatches on intraday data that can occur in fast market conditions.

Key User Information

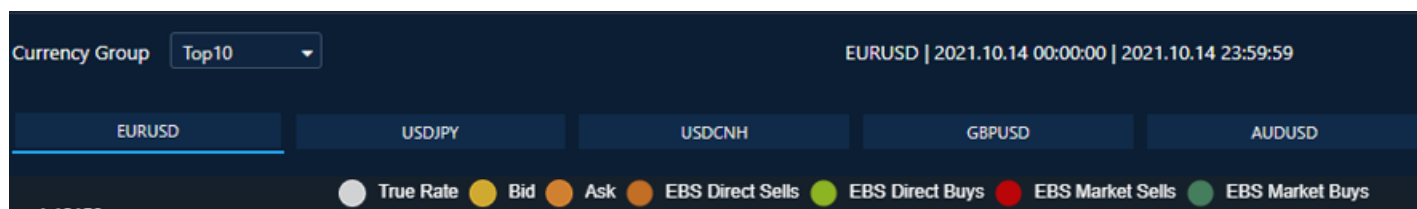
- Timeframe for data can be changed using the zoom feature and is available from seconds up to 7 days
- Prices and Trades are aggregated into time buckets which adjust according to selected timeframes. Maximum allowed time resolution is one second
- Bid/Ask prices reflect prices at the start of every time bucket
- Trades are aggregated by volume weighted price into corresponding time buckets according to direction and segment (Market or Direct)
- Depending on selected timeframe, bubble sizes will adjust to represent volume of the trade flow per time period relative to other trades in displayed timeframe
- All times are shown in GMT, all data is pre-cached for the week, so that switching between currencies and dates is fast
- Users can quickly choose default time periods
- Allows users to determine if satisfied with fill from any counterparty, referencing EBS as the benchmark
- Provides the high and low traded price, bid and ask and the top and bottom 5m VWAP. The High EBS Trade and Low EBS Trade values are calculated from trade data and may differ to the official high/low calculated by EBS
- Shows the price points traded down the minute and across the whole trading day
- If there is either not enough EBS Direct data feeds or EBS Market activity to create an order book, trades will be plotted by time

Tool Navigation

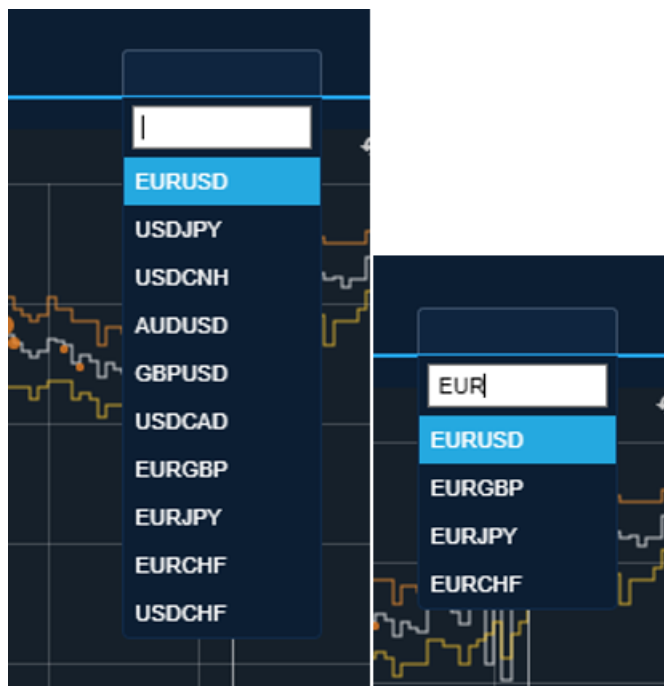
Trade Activity Dashboard allows access to a variety of currency pairs, including the top 10 G10 pairs, silver and gold, and emerging market pairs. There is a dropdown menu where you can choose the subgroup to view.



Once you have chosen a subgroup, the pairs will appear in a line across the top and the user is able to quickly switch between currencies. For example, if top 10 pairs are selected then they will appear as below, and the active pair is highlighted by a blue line (EURUSD below)



The box on the right-hand side of the screen also allows a dropdown menu of currency pairs and the white box allows you to type in the pair you are looking for.



Users can easily choose default time periods:

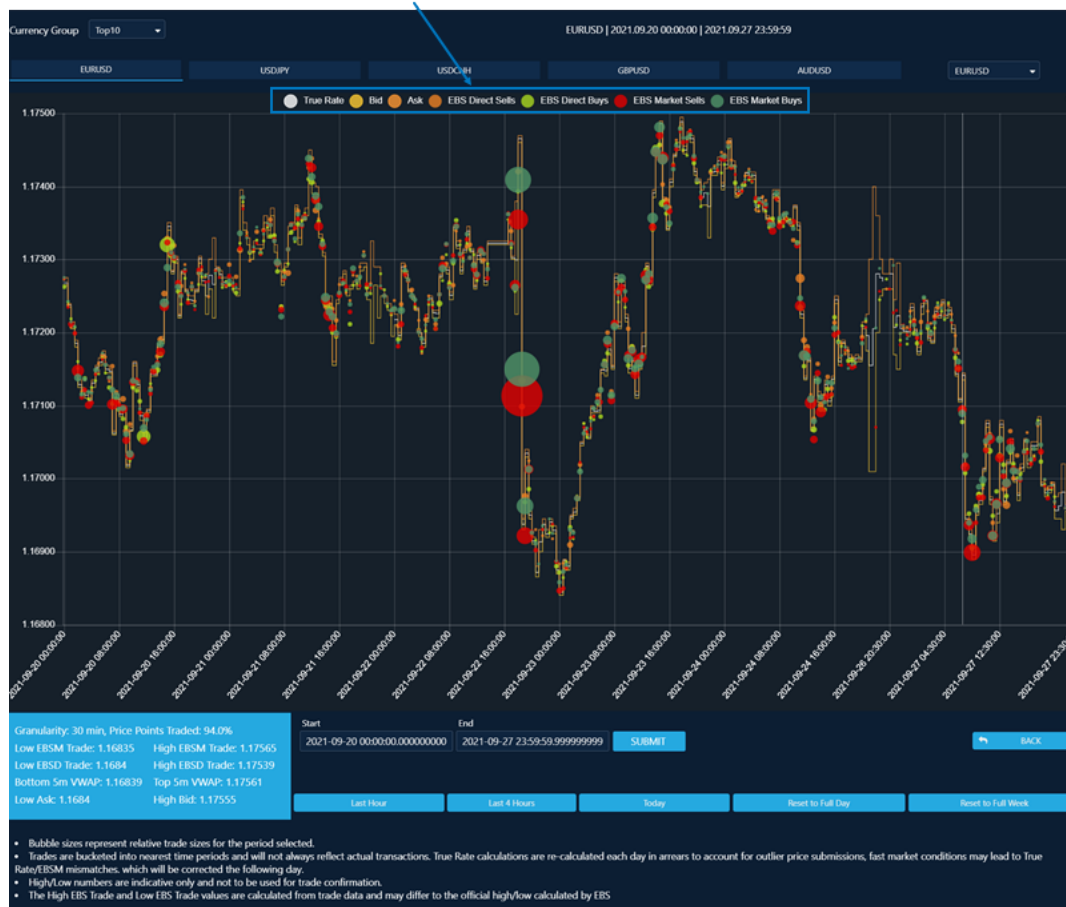
- Last Hour
- Last 4 hours
- Today (GMT day)
- Reset to full day (zooms from the period selected to that day's full range)
- Rest to Full Week (zooms to the last week)

It is also possible to select a specific time period by entering a start date and an end date as shown below – 20/9/21 – 27/9/21

Start	End	SUBMIT
2021-09-20 17:26:00.00000	2021-09-27 19:17:00.00000	

A full screen view is as below:

True Rate, Bid, Ask, EBS Direct Sales, EBS Direct Buys, EBS Market Sells, EBS Market Buys



The following example looks at EURUSD activity over the last FOMC meeting across September 21st/22nd. This is often an event that spurs trading activity and this time investors were waiting to hear what the Fed had to say about the upcoming path of the US economy.

The below shows the trade activity dashboard for EURUSD over the period of 20/9/21 -27/9/21



Bubble sizes adjust to represent volume of the trade flow per time period relative to other trades in the displayed timeframe, and the green and red bubbles represent the trade volumes on EBS Market. As you can see, the bubbles are considerably larger around the lead up to the Fed meeting announcement, which was at 7pm GMT on Wednesday 22nd September. This uses a granularity of 30 minutes and allows an effective quick look comparison of trade activity across the event compared to the rest of the week.

If we zoom in on the timeframe around the event, we can get a closer look at the data.



Overall, there appeared to be more buying leading up to the event (larger green bubbles from 18:00GMT) on EBS Market, followed by selling just before, in to and after the announcement (larger red bubbles from 18:38GMT). This uses a granularity of 10 seconds; however, the tool has access to granularity down to 1 second. The chart also shows trading at all price points (no gapping) highlighting the strength of liquidity and showing EBS market bid-ask reactions to larger trades provide a resilient marketplace.

Most of the volume went through on the EBS Market platform, and if we wanted to only view the activity on one platform, a double click on the icons will remove them – for example, in the screenshot below, EBS Direct data has been removed completely.



The blue box along the bottom underneath the chart shows the granularity used, the high of the EBS Market trade, the low of the EBS Market trade and the same for the EBS Direct platform. It also shows the top and bottom 5m VWAP, for extra detail. So, for example the high on the EBS Market platform was 1.17555. The Price Points Traded metric also shows the % of price increments traded within the daily range.

Granularity: 2 min, Price Points Traded: 92.7%	
Low EBSM Trade: 1.16845	High EBSM Trade: 1.17565
Low EBSD Trade: 1.16857	High EBSD Trade: 1.17539
Bottom 5m VWAP: 1.16845	Top 5m VWAP: 1.17561
Low Ask: 1.16845	High Bid: 1.17555

The above is just one example of how the tool can be used to look at and monitor trade activity for intraday/intraweek TCA purposes or volatility in volumes and pricing across market moving events with access to primary market bid-ask spread data. It also allows analysis of complimentary data across both platforms – EBS Market and EBS Direct. The market bid-ask reactions to the larger trades that went through across the FOMC meeting market event shows that EBS provides access to resilient markets, by providing optimum liquidity in market stressful events.

FX Market Profile

The FX Market Profile dashboard, powered by Quant Analytics, allows traders to compare and contrast CME FX products on a side-by-side basis to improve context and decision making.

The top toolbar allows you to configure the dashboard to display the information you are interested in.

The screenshot shows a dark-themed toolbar with four main sections:

- Currency:** A dropdown menu currently set to 'EURUSD (6E)'.
- Range:** A dropdown menu set to 'Previous 30 days' with a 'custom range' link next to it. Below the dropdown, the date range '1 Jan 22 00:00:00.000 | 30 Jan 22 20:00:00.000' is displayed.
- Order Book Level:** A dropdown menu set to 'x TOB'.
- Granularity:** A dropdown menu set to '30'.

Currency

The dashboard features 18 FX futures markets and cash equivalents. EUR/USD, USD/JPY, AUD/USD, USD/CAD, GBP/USD, USD/CHF, NZD/USD, USD/CNH, USD/MXN, USD/ZAR, USD/RUB, EUR/JPY, EUR/GBP, EUR/CHF, EUR/NOK, EUR/SEK, USD/NOK and USD/SEK.

Date Range

You can choose to review over recent calendar months, the last 30 days, or you can enter your own custom date range. You can also choose the intra-day time period that is shown in the dashboard. Note that selecting a different date range via the drop down will update the start and end times.

By default, the tool displays 00: 00 – 20: 00 GMT.

Order Book Level

In addition to TOB data, you can choose to view spread and order size data for up to ten levels of the orderbook. This allows traders to see how the spreads and order book depth change as multiple levels are selected. There is also a “Futures VWAP” selection which provides a volume weighted bid-ask spread from the FX futures order book for the equivalent volume quoted on EBS Market top of book; this allows you to compare spreads based on like for like order volumes from each market.

Granularity

The tool enables traders to select the time granularity that they wish to see – from 60 mins down to 5 min intervals.

Update Frequency

Data is updated on a T+1 day basis – the tool does not provide real time / trade date data, it is providing backward looking data for analysis.

Exporting the Data

On any of the three panels, to export the data click on the “Data” tab and then on your preferred export format. Excel and CSV are available.

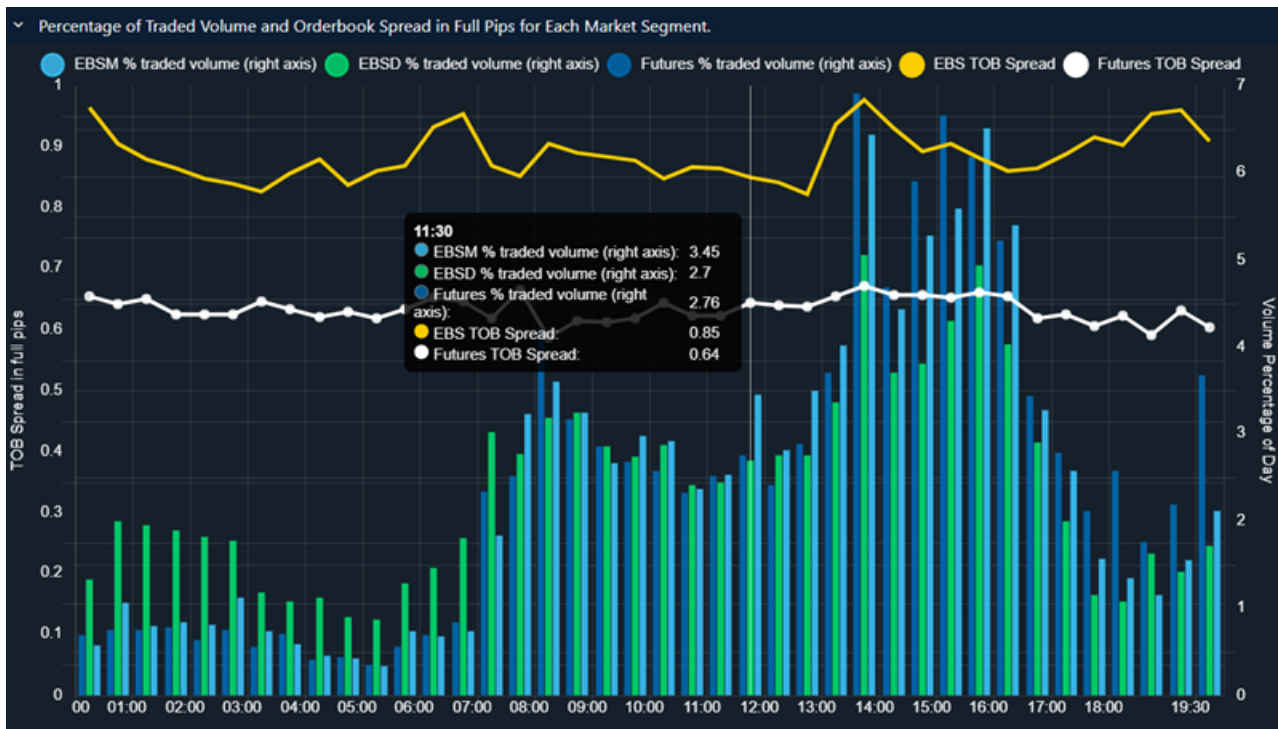
Types of Analysis

Percentage of Traded Volume and TOB Spread in Full Pips for each Market Segment

- Plots the traded volume for each of the three markets, FX futures, EBS Market and EBS Direct as a percentage of the hours selected.
- Overlays the bid-ask spread for the selected orderbook levels for EBS Market and futures.

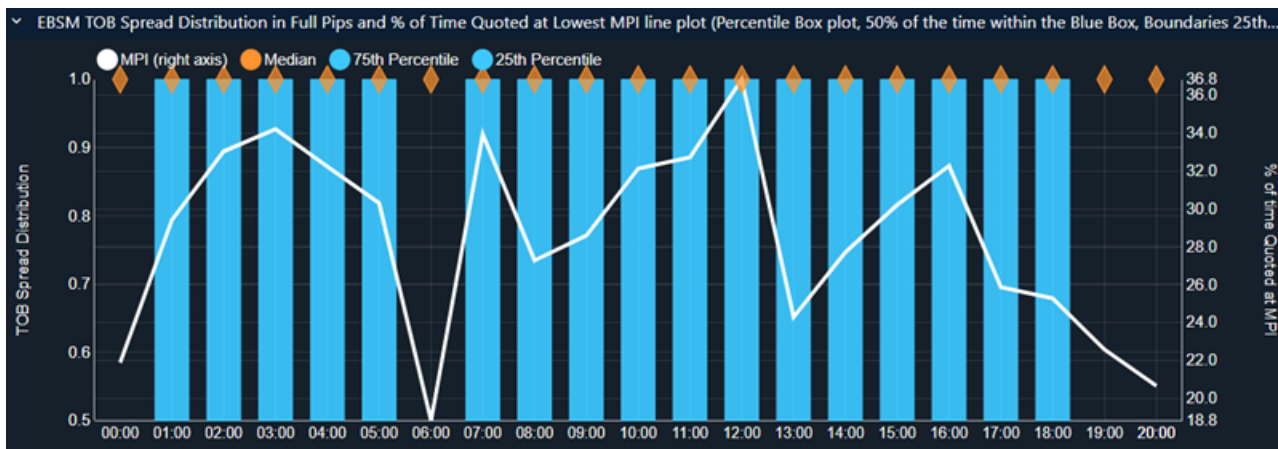


Note: EBS Direct TOB spreads are not available as they are bilaterally quoted between counterparties.



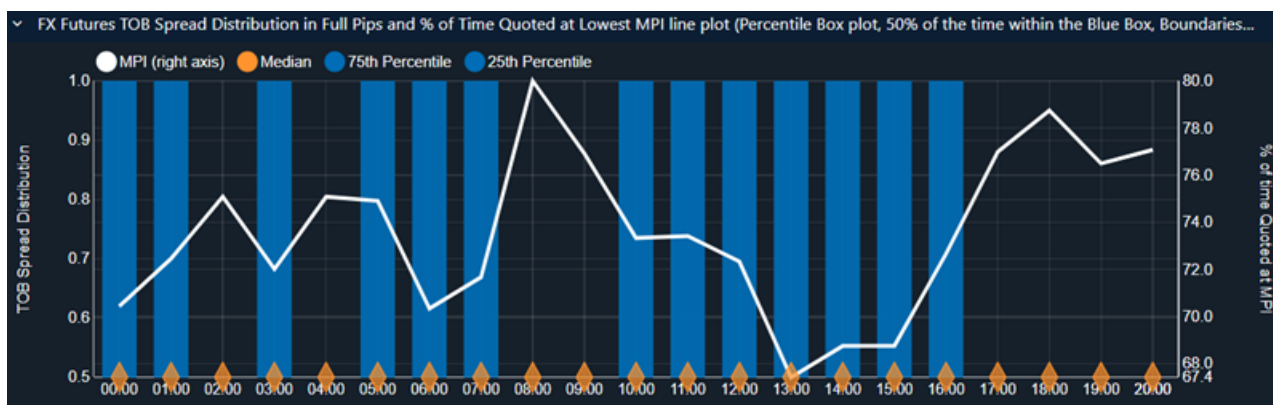
EBSM TOB Spread Distribution in Full Pips

A box-whiskers (percentile) plot that buckets TOB EBS Market spreads into an hourly statistical plot. The median spread is shown in orange. The blue box highlights the range observed 50% of the time between the 25th and 75th percentiles.



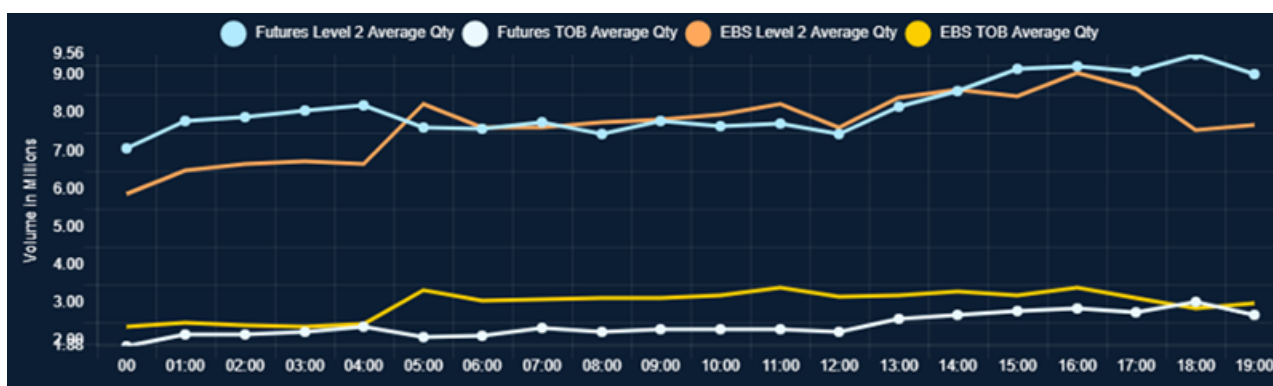
FX Futures TOB Spread Distribution in Full Pips

Similar display to EBSM TOB spread distribution but displaying TOB FX futures spreads.



EBSM and FX futures TOB Volume

A side-by-side comparison of available EBS Market and FX futures orderbook volume for the selected orderbook levels.



Exporting the Data

To export the data click on the “Data” tab and then on your preferred export format. Excel and CSV are available.

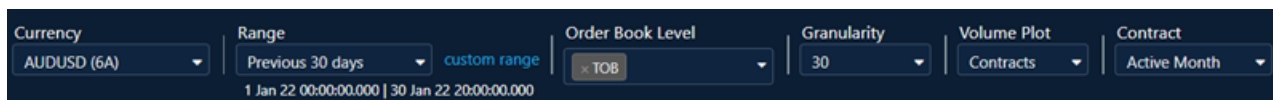
Available Data

The dashboard has three separate panels, showing the following:

- [Cash Futures Analysis](#)
- [FX Link – Futures data](#)
- [Historical Analysis](#)

Cash Futures and FX Link Analysis

As before, the top toolbar allows you to configure the dashboard to display the information you are interested in.



Currency

The dashboard features the same 18 currency pairs as the Cash Futures Analysis. FX Link data is available for 8 currency pairs: EUR/USD, USD/JPY, AUD/USD, USD/CAD, GBP/USD, USD/CHF, NZD/USD, and USD/MXN. Where one of the additional ten currency pairs is chosen, outright futures market data is shown only.

Date Range

You can choose to review over recent calendar months, the last 30 days, or you can enter your own custom date range. You can also choose the intra-day time period that is shown in the dashboard. Note that selecting a different date range via the drop down will update the start and end times.

By default the tool displays 00: 00 – 20: 00 GMT.

Order Book Level

In addition to TOB data, you can choose to view spread and order size data for up to ten levels of the orderbook for both Futures and FX Link markets.

Granularity

The tool enables traders to select the time granularity that they wish to see – from 60 mins down to 5 min intervals.

Volume Plot

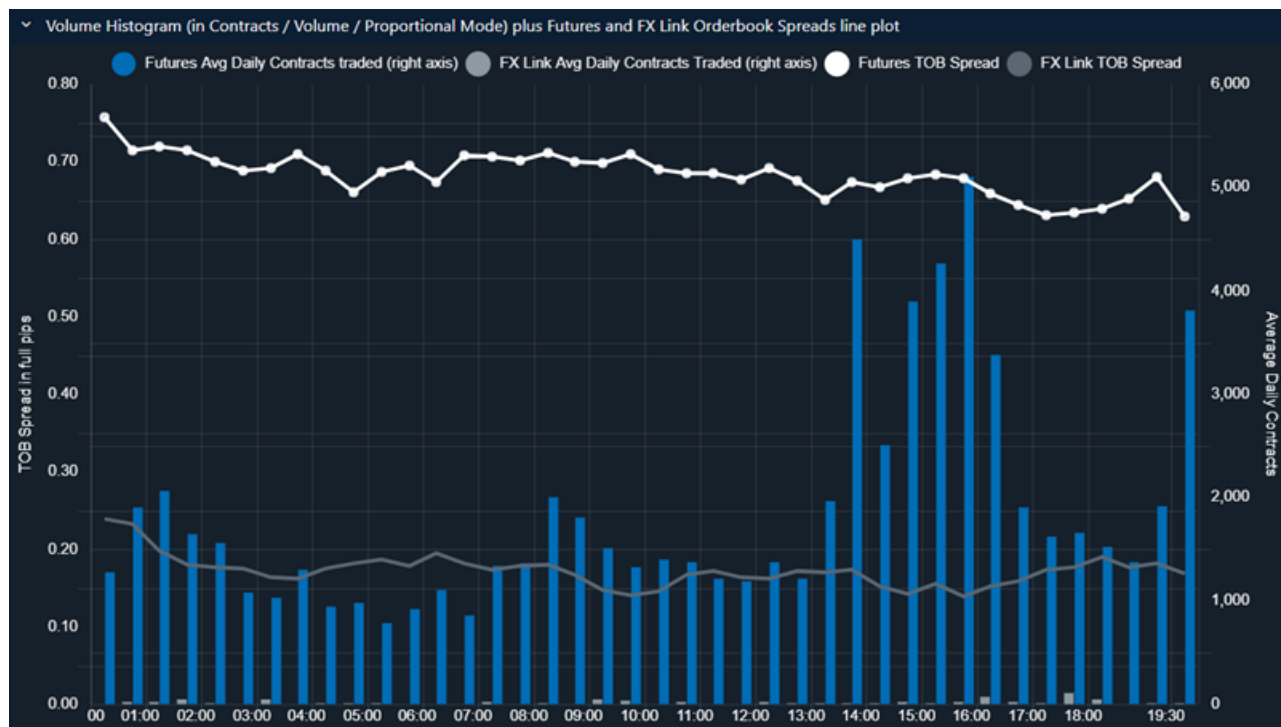
The traded volume chart can be displayed in terms of the number of contracts traded, the US\$ value or the percentage of volume observed in each time period.

Contract

This allows you to spread and volume data for either the most active contract month (typically the front quarterly contract in the major currency pairs) or all contract months blended together.

Types of Analysis

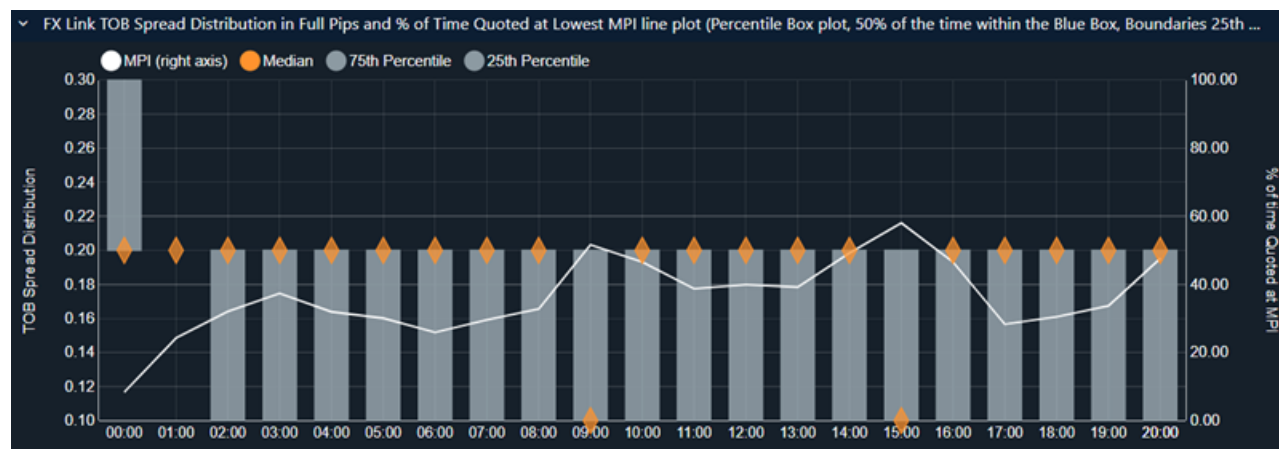
Percentage of traded contracts and volume and orderbook spread in full pips for each market segment



- Plots the traded volume for FX futures and FX Link markets.
- Traded volume is shown in terms of number of contracts traded, the US\$ value traded, or as a percentage of the hours selected.

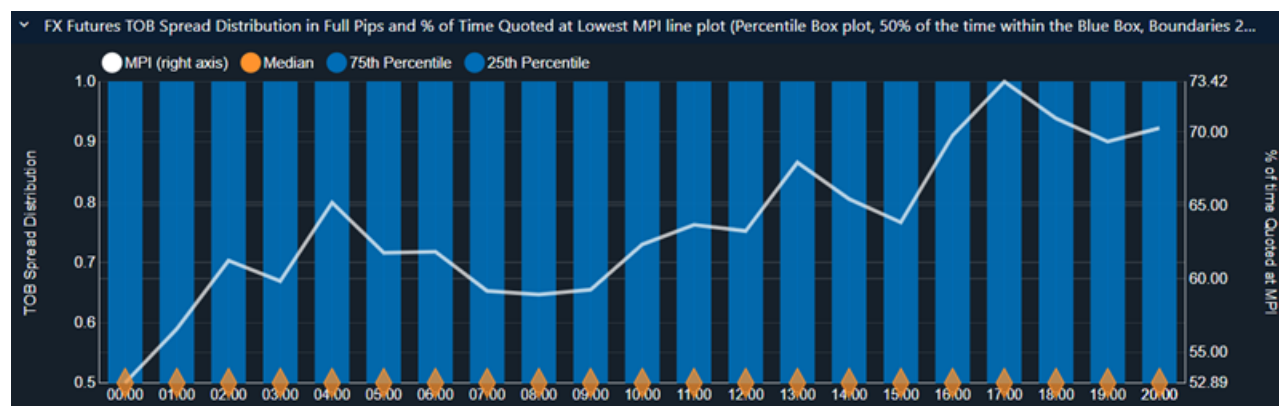
FX Link TOB Spread Distribution in Full Pips

A box-whiskers (percentile) plot that buckets TOB FX Link spreads into an hourly statistical plot. The median spread is shown in orange. The grey box highlights the range observed 50% of the time between the 25th and 75th percentiles.



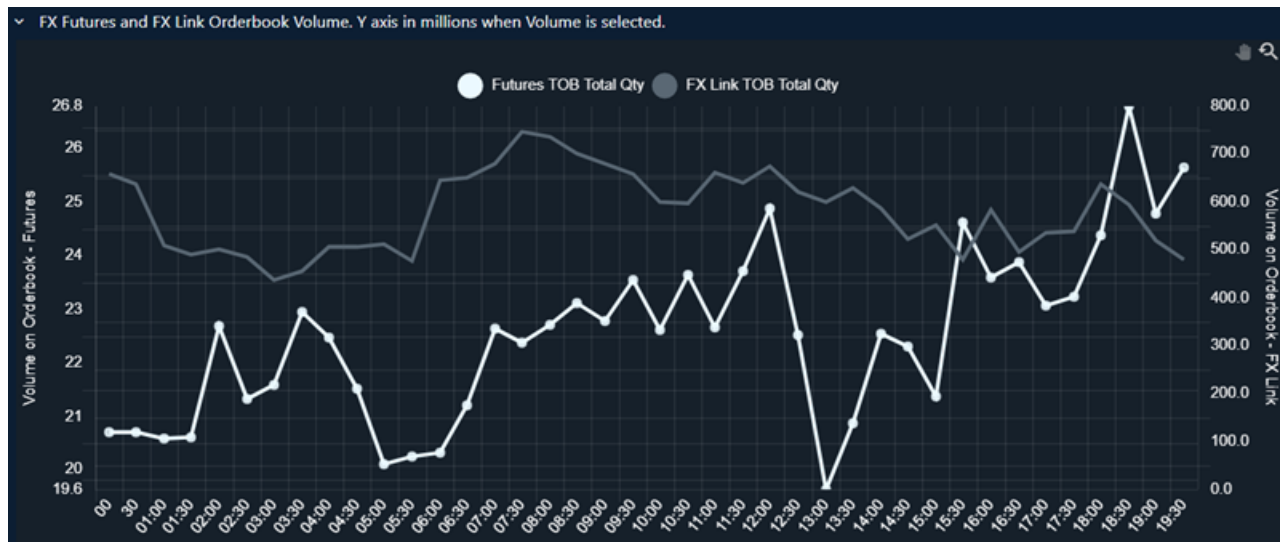
FX Futures TOB Spread Distribution in Full Pips

Similar display to FX Link TOB spread distribution but displaying TOB FX futures spreads. This is the same data as shown on the Cash Futures Analysis panel.



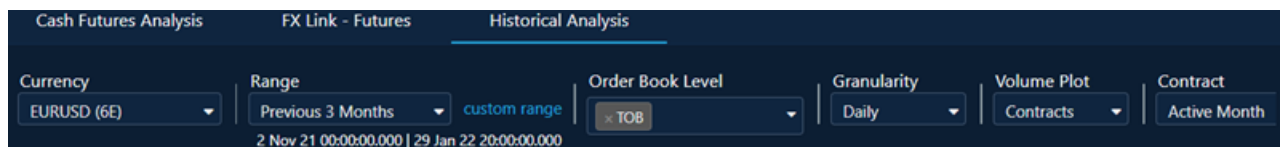
FX Futures and FX Link Orderbook Volume

A side-by-side comparison of available FX futures and FX Link orderbook volume for the selected orderbook levels.



Historical Analysis

Again, the top toolbar allows you to configure the dashboard to display the information you are interested in.



Currency

The dashboard features the same 18 currency pairs as the Cash Futures Analysis and the FX Link – Futures Analysis.

Date Range

The default setting for the Historical Analysis is the previous six months. You can also choose your own custom date range as well as defining the intra-day time period that is shown in the dashboard. Note that selecting a different date range via the drop down will update the start and end times. By default the tool shows 00: 00 – 20: 00 GMT

Order Book Level

In addition to TOB data, you can choose to view spread and order size data for up to ten levels of the orderbook, plus the Futures VWAP spread as previously described.

Granularity

This allows you to choose the desired granularity as daily, weekly or monthly.

Volume Plot

The traded volume chart for Futures and FX Link can be displayed in terms of the number of contracts traded, the US\$ value or the percentage of volume observed in each time period.

Contact

This allows you to spread and volume data for either the most active contract month (typically the front quarterly contract in the major currency pairs) or all contract months blended together.

Types of Analysis

This panel provides the analysis formats seen on the Cash Futures Analysis and Futures – FX Link panels, presented for the chosen granularity.

Metals Market Profile

The Metal Market Profile dashboard allows traders to compare and contrast CME precious metals products on a side-by-side basis to improve context and decision making. You can quickly analyze CME Group precious metals futures markets and the OTC spot equivalents on EBS Market to understand the bid-ask spreads, when the markets are active, and the available liquidity in the order book out to 10 levels.

The dashboard can be used to:

- Compare trading activity across markets to see which platforms are busiest throughout the trading day.
- View the volumes of CME Group precious metals futures traded in both contract and volume (tr. oz.) terms to determine when the market is most active.
- Determine the times during the day where the tightest spread volume occur and compare CME Group metals futures and OTC Spot precious metals.
- View statistical plots available for top of book (“TOB”) spreads
- Review historical data to determine how spreads, order book depth and trading activity performed over a determined time range



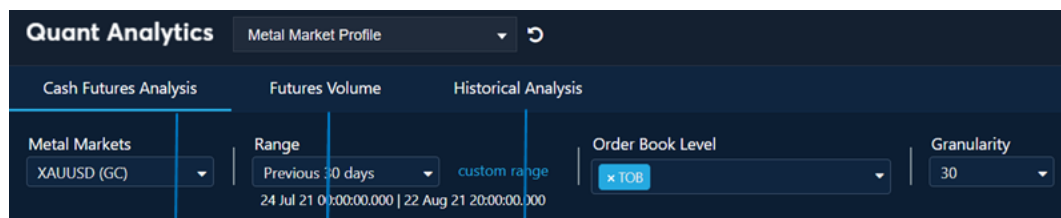
Note: All times are shown in GMT and all data is exportable down to the five-minute level. (Only one-hour buckets available for the percentile plots).

Contact Information

Please contact quantanalytics@cmegroup.com with inquiries or for customer support.

Metals Market Profile Dashboard Overview

The top toolbar allows you to configure the dashboard to display the information you are interested in:



Cash Futures Analysis, Futures Volumes, Historical Analysis panels

Metal Markets

The dashboard currently features COMEX Gold and Silver futures markets and their cash equivalents, XAUUSD (GC) and XAGUSD (SI), on EBS Market and EBS Direct.

Date Range

Choose to review data over recent calendar months, the last 30 days, a custom date range, or an intra-day time period on the dashboard. Note that selecting a different date range via the drop down will update the start and end times.

By default, the tool displays 00:00 – 20:00 GMT.

Order Book Level

In addition to top of book (TOB) data, choose to view spread and order size data for up to ten levels of the order book. This allows traders to see how the spreads and order book depth change as multiple levels are selected. There is also a “Futures VWAP” selection which provides a volume weighted bid-ask spread from the metal futures order book for the equivalent volume quoted on EBS Market top of book; this allows comparison of spreads based on like-for-like order volumes from each market.

Granularity

The tool enables traders to select the time granularity that they wish to see, from 60 minutes down to 5-minute intervals.

Update Frequency

Data is updated on a T+1-day basis. The tool does not provide real time / trade date data, it is providing backward-looking data for analysis.

Exporting the Data

To export the data for any dashboard, click on the “Data” tab and then the preferred export format. Excel and CSV are available.



The screenshot shows the 'Data' tab selected. The table title is 'Percentage of Traded Volume and TOB Spread in Full Pips for Each Market Segment.' The table has columns: CurrencyPairPerHour, ebsSym, EBS TOB Spread, Futures TOB Spread, EBSM % traded volume (right axis), EBSD % traded volume (right axis), and Futures % traded volume (right axis). The data is for XAUUSD (GC) from 00:00:00 to 02:00:00. In the top right corner, there are buttons for 'Excel' and 'CSV' download options.

CurrencyPairPerHour	ebsSym	EBS TOB Spread	Futures TOB Spread	EBSM % traded volume (right axis)	EBSD % traded volume (right axis)	Futures % traded volume (right axis)
00:00:00	SAUUSD	42.9716	13.8000	0.9339	1.3261	0.9138
00:30:00	SAUUSD	37.9833	13.5500	2.0084	1.3453	0.7628
01:00:00	SAUUSD	37.9333	13.8898	3.0620	2.5684	1.8189
01:30:00	SAUUSD	36.5667	13.5167	3.2296	2.5141	1.4823
02:00:00	SAUUSD	37.0167	13.1500	1.4457	1.9843	1.0130

Types of Analysis

The dashboard has three separate panels, showing:

- [Cash Futures Analysis](#)
- [Futures Analysis](#)
- [Historical Analysis](#)

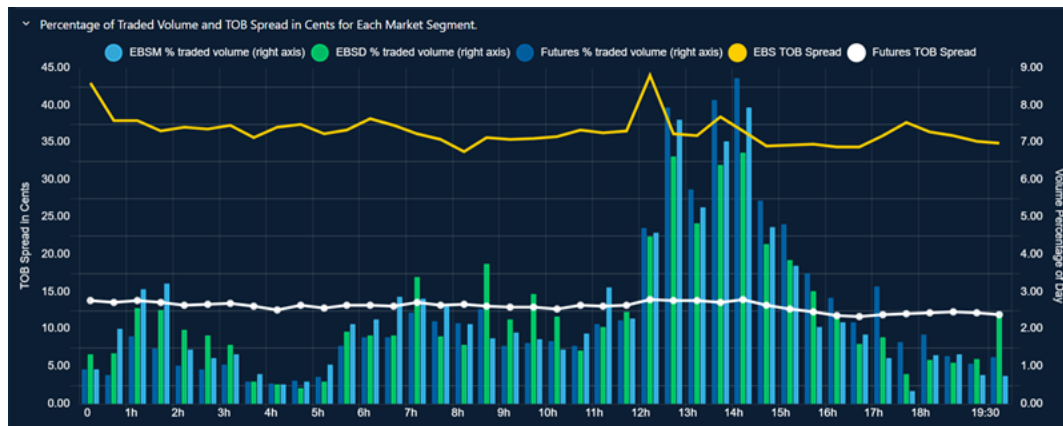
Cash Futures Analysis

Configure the dashboard for Cash Futures Analysis display:



The screenshot shows the dashboard configuration for Cash Futures Analysis. It includes a 'Metal Markets' dropdown set to 'XAUUSD (GC)', a 'Range' dropdown set to 'Previous 30 days' with a 'custom range' link and date range '24 Jul 21 00:00:00.000 | 22 Aug 21 20:00:00.000', an 'Order Book Level' dropdown set to 'x TOB', and a 'Granularity' dropdown set to '30'.

Percentage of Traded Volume and TOB Spread in Cents for Each Market Segment



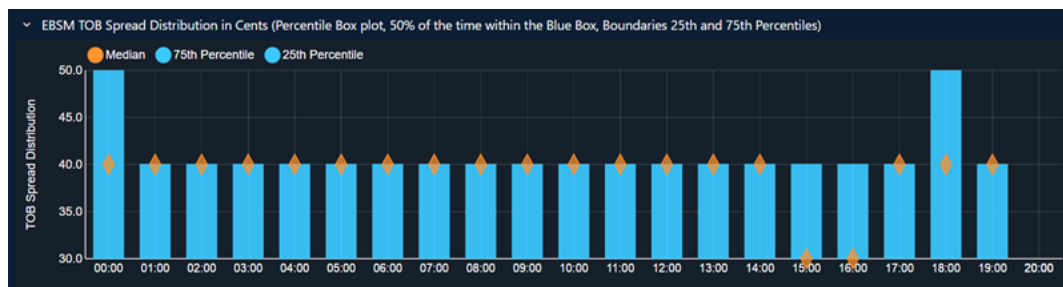
Features:

- Plots the traded volume for each of the three markets: CME Group metals futures, and EBS Market and EBS Direct as a percentage of the hours selected.
- Overlays the bid-ask spread for the selected order book levels for EBS Market and futures.



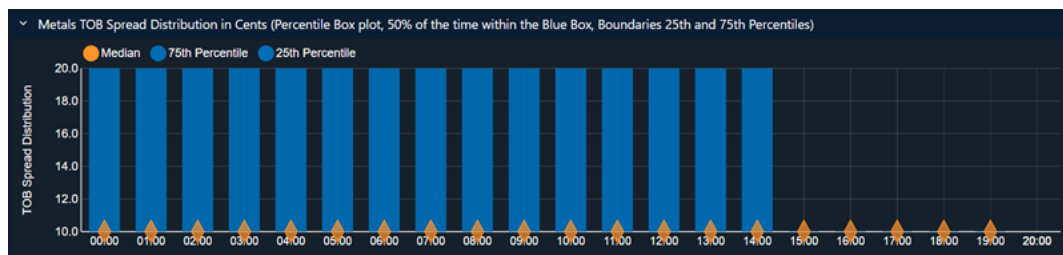
Note: EBS Direct TOB spreads are not available as they are bilaterally quoted between counterparties.

EBSM TOB Spread Distribution in Cents



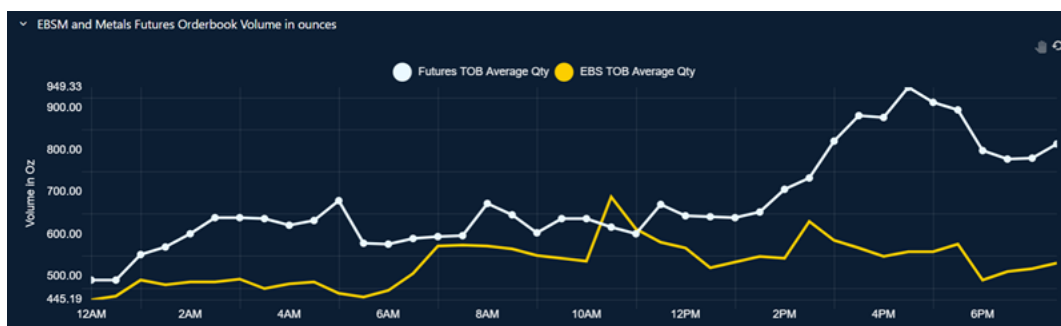
A box-whiskers (percentile) plot that buckets TOB EBS Market spreads into an hourly statistical plot. The median spread is shown in orange. The blue box highlights the range observed 50% of the time between the 25th and 75th percentiles.

Metals Futures TOB Spread Distribution in Cents



This feature has a similar display to EBS Market TOB spread distribution but displays TOB CME Group metals futures spreads.

EBSM and Metals Futures Order Book Volume in Ounces



A side-by-side comparison of available EBS Market and CME Group metals futures order book volume for the selected orderbook levels.

Futures Analysis

Configure the dashboard for Futures Volumes display:

Metal Markets

The dashboard features the same metals as the Cash Futures Analysis. Futures volume data is available for precious metals.

Date Range

Choose to review data over recent calendar months, the last 30 days, a custom date range, or an intra-day time period on the dashboard. Note that selecting a different date range via the drop down will update the start and end times.

By default, the tool displays 00:00 – 20:00 GMT.

Order Book Level

In addition to TOB data, choose view spread and order size data for up to ten levels of the order book for CME Group futures markets.

Granularity

The tool enables traders to select the time granularity that they wish to see – from 60 minutes down to 5-minute intervals.

Volume Plot

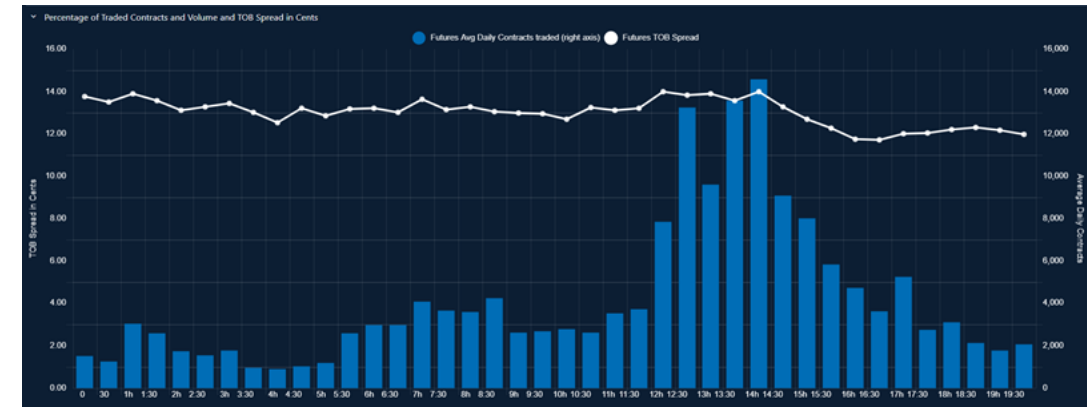
The traded volume chart can be displayed in terms of the number of contracts traded, the number of ounces traded, or the percentage of volume observed in each time period.

Contract

This allows you see volume data for either the most active contract month or all contract months blended together.

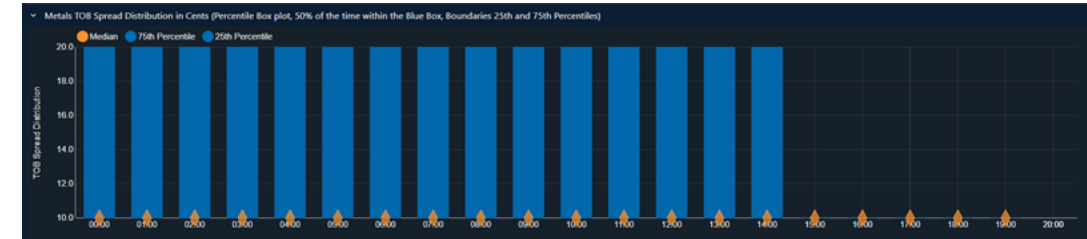
Types of Analysis

Traded Contracts and Volume and TOB Spread in Cents



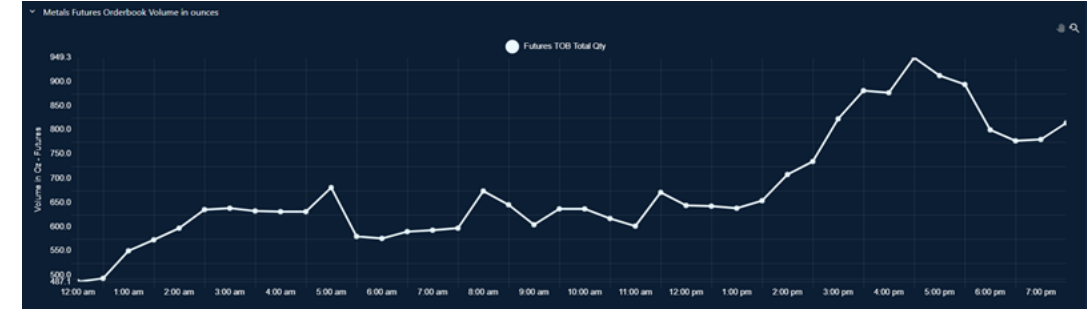
- Plots the traded volume for CME Group precious metals futures.
- Traded volume is shown in terms of number of contracts traded, the volume in ounces traded, or as a percentage of the hours selected.

Metals TOB Spread Distribution in Cents



A box-whiskers (percentile) plot that buckets TOB metals spreads into an hourly statistical plot. The median spread is shown in orange. The blue box highlights the range observed 50% of the time between the 25th and 75th percentiles.

Metals Futures Order Book Volume in Ounces



A look at CME Group metals futures order book volume for the selected order book levels.

Historical Analysis

Configure the dashboard for Historical Analysis:

Metal Markets

XAUUSD (GC)

Range

Previous 6 Months

custom range

25 Feb 21 00:00:00.000 | 21 Aug 21 20:00:00.000

Order Book Level

x TOB

Granularity

Daily

Volume Plot

Contracts

Contract

Active Month

The top toolbar allows you to configure the dashboard to display the information you are interested in.

Metal Markets

The dashboard features the same precious metals as the Cash Futures Analysis and the Futures Volume Analysis.

Date Range

The default setting for the Historical Analysis is the previous six months. Choose a custom date range as well as define the intra-day time period that is shown in the dashboard. Note that selecting a different date range via the drop down will update the start and end times.

By default, the tool shows 00:00 – 20:00 GMT.

Order Book Level

In addition to TOB data, you can choose to view spread and order size data for up to ten levels of the order book, plus the Futures VWAP spread as previously described.

Granularity

This allows you to choose the desired granularity as daily, weekly or monthly.

Volume Plot

The traded volume chart can be displayed in terms of the number of contracts traded, the number of ounces traded, or the percentage of volume observed in each time period.

Contract

This allows you to see spread and volume data for either the most active contract month or all contract months blended together.

Types of Analysis

This panel provides the analysis formats seen on the Cash Futures Analysis and Futures Volume panels, presented for the chosen granularity.

US Treasury Market Profile

The UST Market Profile brings the power of its listed Treasury futures together with BrokerTec's cash traded U.S. Treasury trading in one place for deep market insights. Now with the ability to assess, liquidity, pricing, orderbook levels, and market microstructures clients have the ability to see how they can best manage the interest rate risk across markets.

The UST Market Profile can be used to:

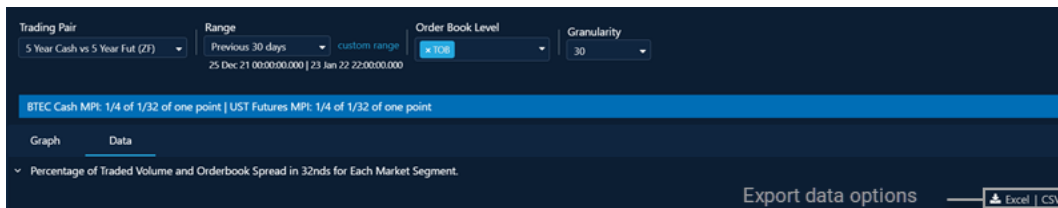
- Compare traded activity across markets to see which platforms are busiest throughout the trading day.
- View the volumes of U.S. Treasury futures traded in, contract, volume and proportional terms to determine when the market is most active.
- Find out what times of the day have the tightest spreads, and compare spreads for U.S. Treasury.
- View statistical plots available for top of book ("TOB") spreads.
- Review historic data to determine how spreads, order book depth and trading activity performed over a determined time range.



Note: All times are shown in GMT and all data is exportable, down to the five-minute level. (Only one-hour buckets available for the percentile plots). Currently, only futures volume data is public domain data.

Exporting the data

To export the data click on the "Data" tab and then on your preferred export format. Excel and CSV are available.



Trading Pairs

The dashboard features 7 U.S. Treasury futures markets and cash equivalents.

- 2 Year Cash vs 2 Year Futures (ZT)
- 3 Year Cash vs 3 Year Futures (Z3N)
- 5 Year Cash vs 5 Year Futures (ZF)
- 7 Year Cash vs 10 Year Futures (ZN)
- 10 Year Cash vs 10 Year Futures (TN)
- 20 Year Cash vs 20 Year Future (ZB)
- 30 Year Cash vs Ultra 20 Year Futures (UB)

Types of Analysis

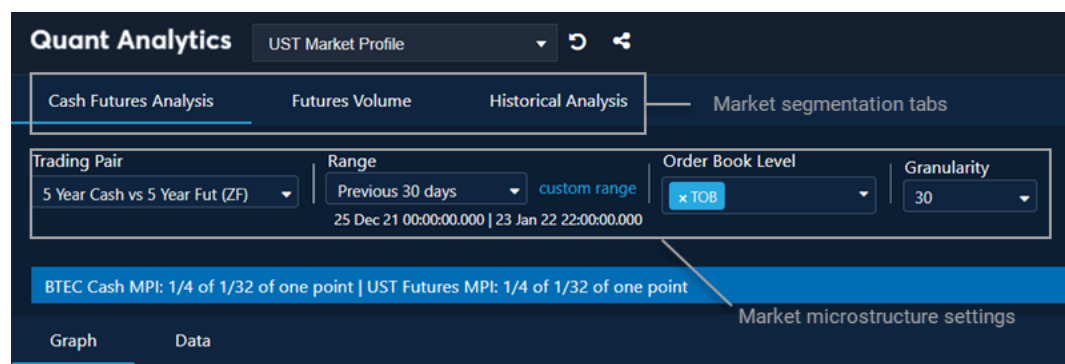
The dashboard has three separate panels, showing:

- [Craft Unique Views from the Start](#)
- [Cash Futures Analysis](#)
- [Futures Volume](#)
- [Historical Analysis](#)

Craft Unique Views from the Start

The UST Market Profile starts up with standard settings that are highly customizable through quick dropdown menus and tabs. “Cash Futures Analysis” is selected as the initial market segmentation type. Other types include Futures Volume and Historical Analysis.

The top section of the UST Market Profile provides significant customization



The market microstructures settings seek to dial into the insights that the UST Market Profile can provide. Establish similar tenor derivative and cash products by selecting “Trading Pair.” The UST Market Profile starts with the 5-year point. The other pairs available include 2-, 3-, 5-, 7-, 10-, 20- and 30-year points. At present, the 20-year only has BrokerTec levels, but with the announcement of the 20-Year Bond future, the data will be available soon after the future’s planned launch on March 7, 2022.*

*Pending regulatory review.

Date Range

Choose the date range to view. Standardized time periods include the previous 30 days, each of the prior two months and month-to-date. In addition, custom time periods are simple to create by clicking on the “custom range” link to the right of the dropdown box. Once a time period has been selected, white text below the dropdown box clearly reports what is the beginning and end of the time period.

By default, the tool displays data between 00:00 – 22:00 GMT.

Order Book Level

Analyze up to 10 orderbook levels with the next dropdown box. The UST Market Profile tool is set to initially displace Top-of-Book (TOB), but other individual levels or all levels can be displayed. This brings the power of pricing transparency of a Central Limit Order Book with the significant depth of CME Group’s interest rate markets.

Granularity

Determine the discrete time periods to view as a final setting for market microstructures. Units are in minutes and you can select 5, 10-, 15-, 30- or 60-minute intervals on the Cash Futures Analysis tab.

MPI

For clarity and consistency across markets, the blue bar with white text clearly states what each market's minimum price increment (MPI) is. For the 5-year, the UST Market Profile displays



"BTEC Cash MPI: 1/4 of 1/32 of one point | UST Futures MPI: 1/4 of 1/32 of one point."

For each market tenor point, the correct MPIs are displayed.

Update Frequency

Providing backward looking data for analysis, the data is updated on a T+1 day basis – the tool does not provide real time / trade date data.

Cash Futures Analysis

Configure the dashboard for Cash Futures Analysis display:

Cash Futures Analysis

Futures Volume

Historical Analysis

Trading Pair

Range

Order Book Level

Granularity

5 Year Cash vs 5 Year Fut (ZF)

Previous 30 days

custom range

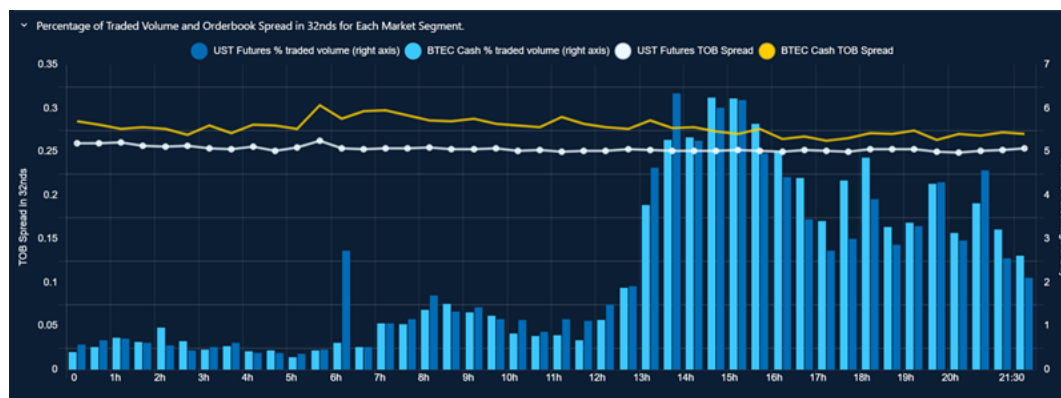
x TOB

30

27 Dec 21 00:00:00.000 | 25 Jan 22 22:00:00.000

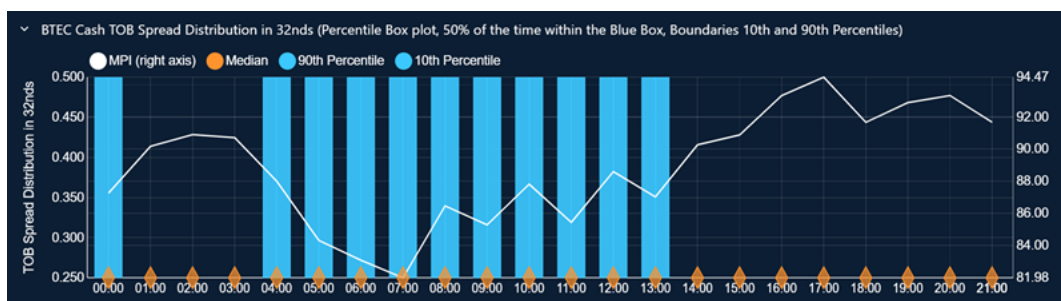
Types of Analysis

Percentage of Traded volume and orderbook spread in 32nds for each market segment



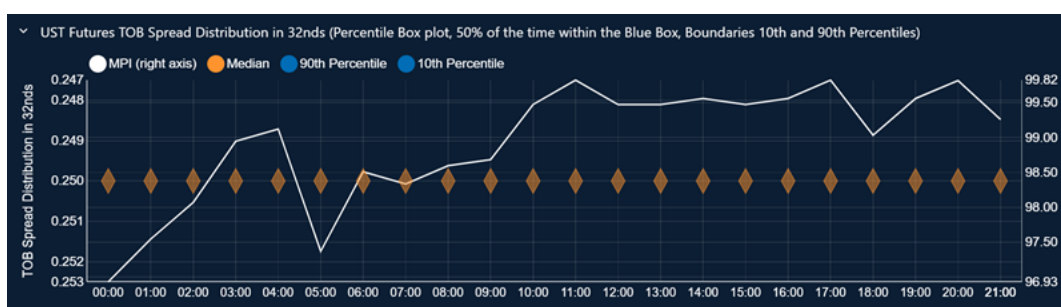
- Plots the traded volume for UST Futures and BrokerTec Cash as a percentage of the hours selected.
- Overlays the bid-ask spread for the selected orderbook levels in 32nds.

BTEC Cash TOB Spread Distribution in 32nds (Percentile Box plot, 50% of the time within the Blue Box, Boundaries 10th and 90th Percentiles)



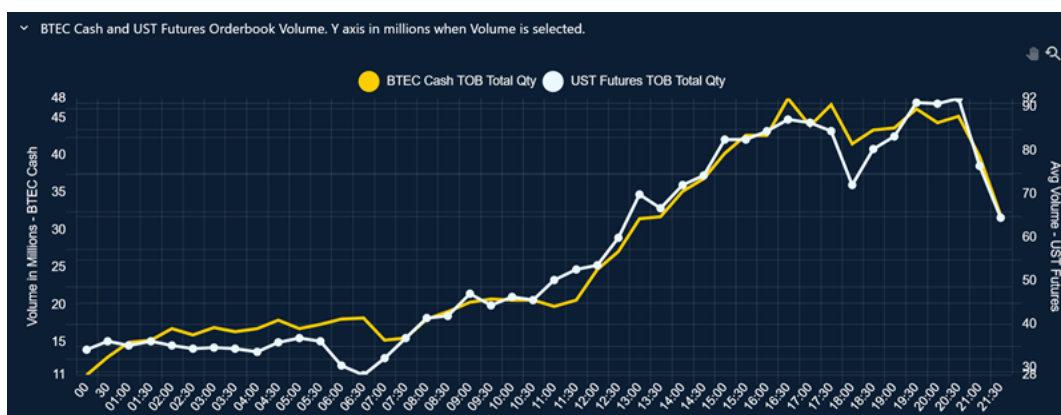
A box-whiskers (percentile) plot that buckets TOB BrokerTec spreads into an hourly statistical plot. The median spread is shown in orange. The blue box highlights the range observed 50% of the time between the 10th and 90th percentiles.

UST Futures TOB Spread Distribution in 32nds (Percentile Box plot, 50% of the time within the Blue Box, Boundaries 10th and 90th Percentiles)



Similar display to BrokerTec TOB spread distribution but displaying TOB UST futures spreads.

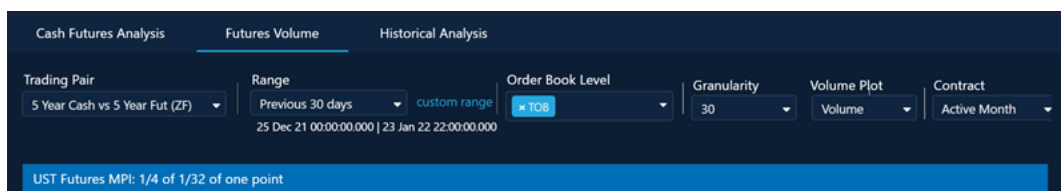
BrokerTec Cash and UST Futures Order book volume



A side-by-side comparison of available BrokerTec cash and U.S. Treasury orderbook volume for the selected orderbook levels.

Futures Volume

Configure the dashboard for Futures Volumes display:



The Futures Volume tab offers two additional configuration options:

Volume Plot

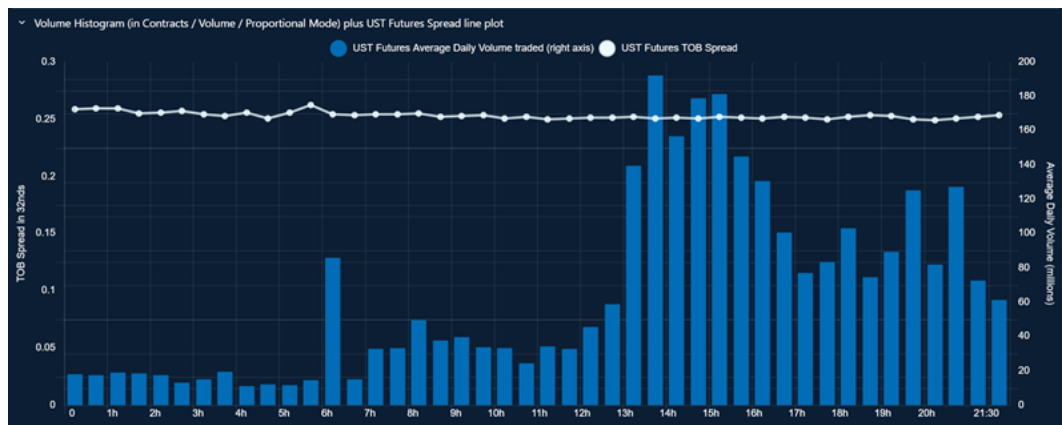
The traded volume chart can be displayed in terms of the number of contracts traded, the \$US value or the percentage of volume observed in each time period.

Contract

Use this option to display the spread and volume data for either the most active contract month (typically the front quarterly contract) or all contract months blended.

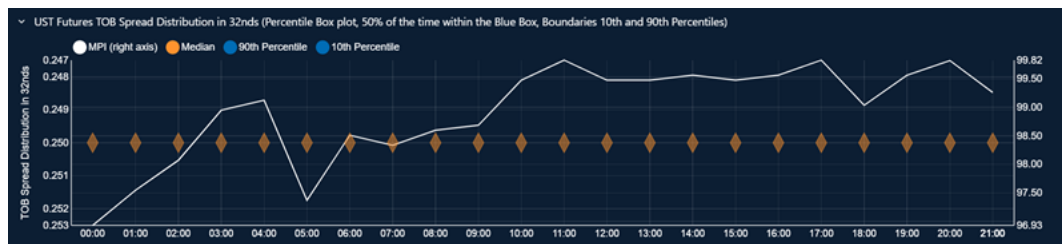
Types of Analysis

Volume Histogram (in Contracts / Volume / Proportional Mode) plus UST Futures Spread line plot



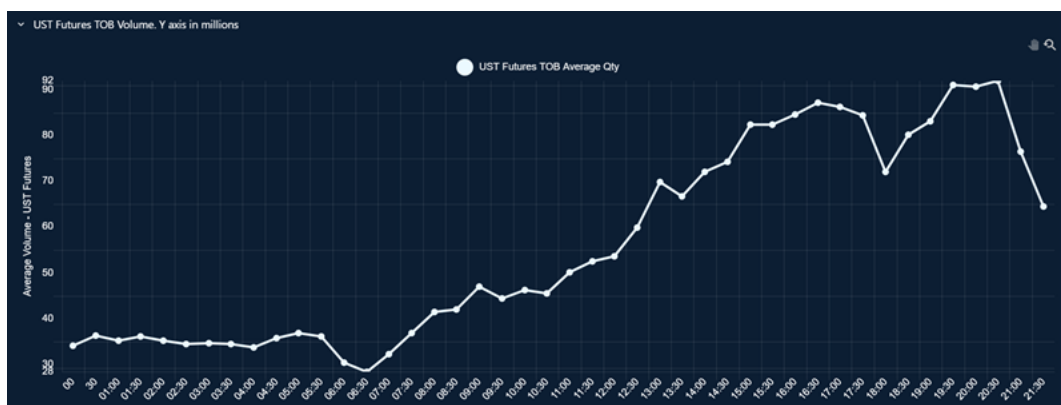
- Plots the traded volume for UST Futures.
- Overlays the bid-ask spread for the selected orderbook levels in 32nds.
- Depending on the volume plot selections:
 - **Contract** will display the traded volume in terms of the number of contracts traded
 - **Volume** will display the US dollar traded volume
 - **Proportional** will display as a percentage of the traded volume for that day

UST Futures TOB Spread Distribution in 32nds (Percentile Box plot, 50% of the time within the Blue Box, Boundaries 10th and 90th Percentiles)



A box-whiskers (percentile) plot that buckets TOB UST Futures spread in 32nds into an hourly statistical plot. The median spread is shown in orange. The grey box highlights the range observed 50% of the time between the 10th and 90th percentiles.

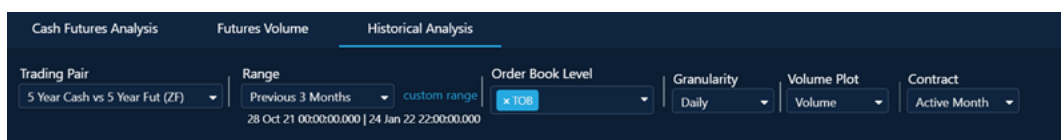
UST Futures TOB Volume. Y axis in millions



A plot of the UST Futures orderbook volume for the selected orderbook levels.

Historical Analysis

Configure the dashboard for Historical Analysis display:



This panel provides the analysis formats seen on the Cash Futures Analysis and Futures volume panels.

The data range defaults to the past 3 months and is plotted on a daily basis. The Historical Analysis tab offers two additional configuration options:

Volume Plot

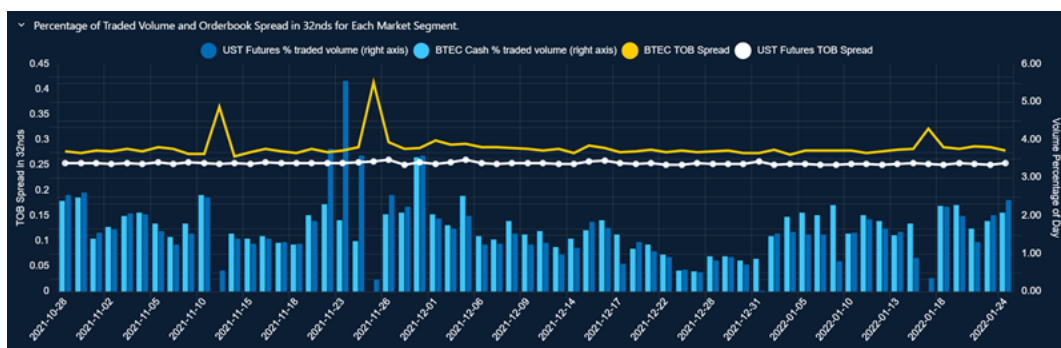
The traded volume chart can be displayed in terms of the number of contracts traded, the US\$ value or the percentage of volume observed in each time period.

Contract

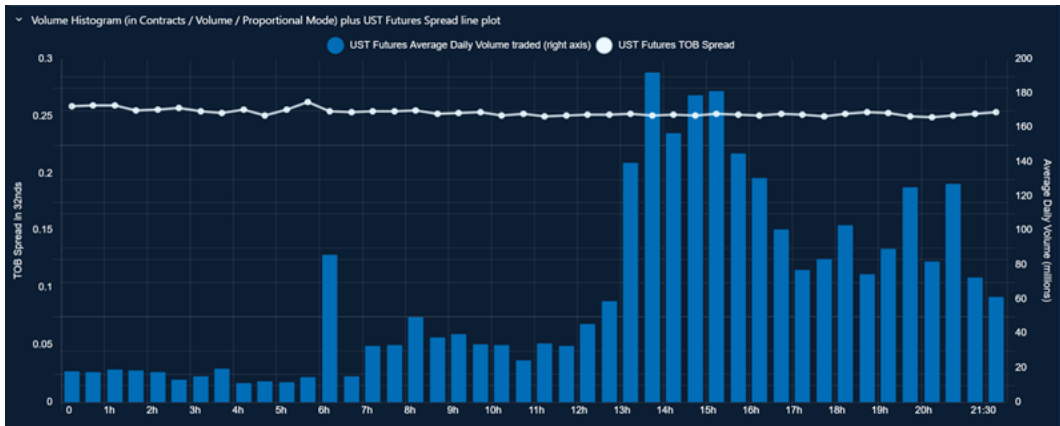
This allows you to see spread and volume data for either the most active contract month (typically the front quarterly contract) or all contract months blended.

Types of Analysis

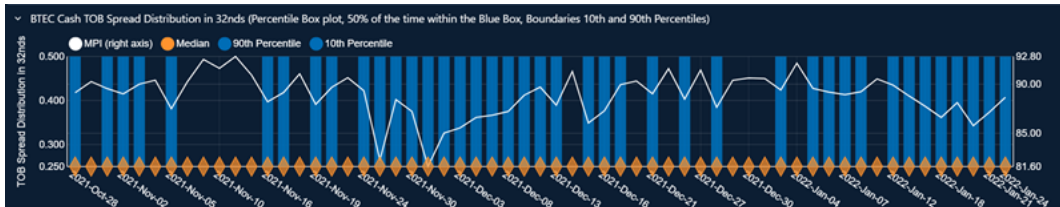
Percentage of Traded Volume and Orderbook Spread in 32nds for Each Market Segment



Volume Histogram (in Contracts / Volume / Proportional Mode) plus UST Futures Spread line plot



UST Futures TOB Spread Distribution in 32nds (Percentile Box plot, 50% of the time with the Blue Box, Boundaries 10th and 90th Percentiles)



BTEC Cash and UST Futures Orderbook Volume. Y axis in millions when Volume is selected

